



BUNER'S MANUAL

WWW CORSAIRMARINE COM







This manual has been complied to help you to operate your craft with safety and enjoyment. It contains details of the craft, the equipment supplied or fitted; it's systems, and information on its operation and maintenance. Please read it carefully and familiarize yourself with the craft before using it.

Suppliers of the more complex components such as engine, electronics, and pumps, supply their own instructional manuals delivered to you when you purchased your boat. These suppliers maintain their own manufacturers warranty and services facilities. It is essential that you fill out each warranty card and mail them to each manufacturer informing them that you are a registered owner of their product (s).

This owner's manual does not supersede or change any of their specifications, operations, or maintenance instructions.

If this is your first craft, or you are changing to a type of craft you are not familiar with, for your own comfort or safety, please ensure that you obtain handling and operating experience before assuming command of the craft. Your dealer or local coast guard auxiliary will be pleased to advice you of local safe boating schools or competent instructors.

PLEASE KEEP THIS MANUAL IN A SECURE PLACE, AND PASS ON TO THE NEW OWNER WHEN YOU SELL THE CRAFT.

	Model		
Owner 1:	Owner 2:	Owner 3:	

Corsair reserves the right to change, alter, and modify their finished boats, parts, and specifications included in your Owner's Manual without notice. Optional equipment described in this manual may vary from model to model and year to year. Please consult with your Corsair Dealer for current information on standard and optional equipment and specifications.



Built By Corsair Marine, Inc. 150 Reed Court, Chula Vista, CA 91911, U.S.A., www.corsairmarine.com, (619)585-3005

WELCOME

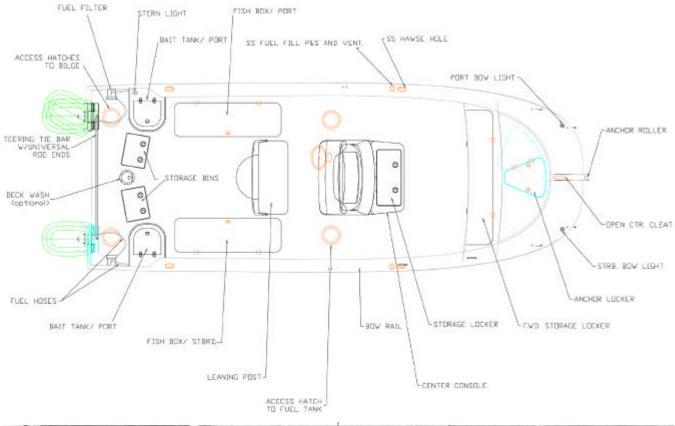
We at Corsair Marine would like to congratulate you on your purchase of a Corsair Foiler 2200. We believe the Corsair Foiler 2200 to be one of the most versatile powerboats. Speed, handling, stability, trailerability and quality all add up to the best powerboat value possible. Corsair has gone to great lengths to provide a high quality boat using the latest in technology.

Corsair and the dealers that represent our boats are dedicated to helping you, the consumer, whatever your interest. We are constantly exploring techniques and gear to make the Corsair Foiler 2200 "state of the art".

Corsair is always eager to hear from the owners of our boats. If you have questions or suggestions, contact your dealer or our customer service department.

We hope that this Owner's instruction Manual will provide an easy reference guide for the use of your corsair Foiler 2200. Some specifications updates may be provided in addition to the manual if any changes do occur.

Thank You For Choosing A Corsair Foiler 2200.





WARRANTY

AND LIMITATION OF LIABILITY

Seller warrants, for a period of one year from the date of delivery, to the original (first-use) Purchaser, that any part of the Corsair Foiler 2200 manufactured by Corsair will be free of defects in material and workmanship for a period of twelve (12) months from the date of delivery to the first-use Purchaser under normal use and service. Seller's sole obligation under this warranty shall be limited to replacing, correcting or repairing any part manufactured by Corsair which is determined by Corsair to be defective by reason of faulty workmanship or material. This warranty shall not apply to:

- 1. Equipment not manufactured by Corsair. Any warranty made by the manufacturer of such items will be given to the first-use Purchaser, if possible.
- 2. Problems or defects caused by accident, misuse, neglect, improper maintenance, storage, cradling or blocking, negligent or improper operation, normal wear and tear, improper repair, corrosion, electrolysis, or improper modification by persons other than Seller's employees.
- 3. Any discoloration, crazing or cracking on all exterior finishes (including paint, gelcoat and anodizing). Only the best gelcoats and paints are used but they cannot be warranted as they may be affected by climate or other factors beyond the control of the Seller.
- 4. Any damage caused by improper trailering or launching.
- 5. Defects or faulty workmanship caused by persons other than the manufacturer, a current authorized Dealer, or a Corsair-approved repair facility, in modifying or in adding equipment to the Corsair Foiler 2200 or altering equipment on the Corsair Foiler 2200, whether or not such equipment was supplied by the manufacturer.
- 6. Any costs of transportation, hauling, launching, owner or crew transport, meals or lodging, storage, dockage, loss of time, loss of income, or similar costs.
- 7. Boats used for commercial activities, including charter, except as allowed under the Limited One Year Warranty above.
- 8. Any Boat that has been used in a trans-oceanic passage exceeding two hundred (200) miles from any coast.

Seler further warrants to the first-use Purchaser, for a period of ten (10) years that the hulls of the Corsair Foiler 2200 shall be free of any structural defects that may cause structural failure during normal operation. Seller's obligation under this warranty shall be limited to replacing, correcting, or repairing any part which, in the judgment of the seller, by its failure, has impaired the structural integrity of

the Corsair Foiler 2200.

This structural failure warranty shall be voided if seller should determine that said components have been subjected to any abuse, including but not limited to collision with other Boats, structures or objects.

Seller further warrants, for a period of ten (10) years, that the hull and other fiberglass parts manufactured by Corsair will be free of gelcoat voids and blisters. Seller's obligation under this warranty shall be limited to repairing the void or blister. The blister limited warranty will be voided:

- 1. If the gelcoat has been subject to impact or abrasion or has been sanded or sandblasted.
- 2. If the recommendations for preserving the gelcoat finish on marina-docked boats set out in the Corsair Foiler 2200 Owner's Manual are not followed.

Purchaser shall be responsible for returning the Corsair Foiler 2200, or any defective part, to Seller's facility, for any warranty repairs, with all transportation charges paid by Purchaser. Seller may, at its option, direct the Purchaser to transport the Corsair Foiler 2200 to an independent repair facility for any needed replacements, corrections or repairs.

Purchaser agrees to promptly notify Corsair of any condition or part which Purchaser believes to be defective within thirty (30) days of discovering the defect.

PURCHASER AND SELLER AGREE THAT THE FOREGOING WARRANTY IS EXPRESSLY IN LIEU OF ANY AND ALL OTHER RERESENTATIONS, WAR-RANTIES OR CONDITIONS EXPRESSED IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABLITY OR FIT-NESS FOR A PARTICULAR PURPOSE, AND IS IN LIEU OF ANY OBLIGATIONS OR LIABILITIES OF SELLER TO PURCHASER, WHETHER FOR LOSS OF USE OF THE CORSAIR FOILER 2200, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, OR FOR DIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES OR OTHERWISE ARISING OUT OF THE USE OF THE CORSAIR FOILER 2200. THE PURCHASER SPECIFI-CALLY ACKNOWLEGES AND AGREES THAT THE FOREGOING SHALL SURVIVE ANY FUNDAMEN-TAL BREACH OF THIS AGREEMENT. IN SOME JURISDICTIONS, THE MANUFACTURER IS PROHIB-ITED FROM EXCLUDING OR LIMITING IMPLIED WARRANTIES.. IN THOSE JURISDICTIONS THE EXPRESSLY LIMITS MANUFACTURER IMPLIED WARRANTIES TO THE GREATEST EXTENT AND TO THE SHORTEST DURATION ALLOWED BY LAW.

CHAPTER 1 — GENERAL INFORMATION	Live Bait Wells#
	Fish Boxes
Owners Responsibilities #	Deck Wash
Warnings Explanations #	Swim Platform#
Boat Laws & Regulations #	Bottom piant and Electrolosys
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Rules of the Road#	CHAPTER 3 — PRE-LAUNCH AND DELIVERY
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	Loading
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	CHAPTER 5 — CARE AND APPEARANCE
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Fuel Vents#	Aluminum
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6	Canvas#
DRAINAGE	Engine
Maintenance#	
Cockpit Drains#	DOCUMENTS AND FORMS
Bilge#	2 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Anchor Locker#	Accident Form
i Michol Lockeiπ	Boating Log
MISCELLANEOUS SYSTEMS	Doming Logπ
MISCELLI MESCO STOTLIND	

GENERAL

OWNER/OPERATION RESPONSABILITIES

The boat maintenance, boating safety and the safety of your passengers are YOUR responsibility. You should fully understand and become familiar with the following information.

WARNINGS

THROUGHOUT THIS MANUAL, THE FOLLOW-ING SIGNAL WORDS AND SYMBOLS ARE USED TO ALERT YOU TO POTENTIAL HAZARDS. OBEY ALL MESSAGES AND INSTRUCTIONS. FAILURE TO FOLLOW THESE MESSAGES AND INSTRUCTIONS MAY LEAD TO POSSIBLE INJURY OR DEATH.



DANGER: Immediate hazards which WILL result in severe personal Injury or death.



WARNING: Hazards or unsafe practices which COULD result in severe personal Injury or death.



CAUTION: Hazards or unsafe practices which COULD result in minor Injury or product or property damage.

NOTICE

NOTICE: information which is Important to proper Installation or Maintenance but is not hazard related.

AMARNING

A Wide variety of components used on this vessel contain or emit chemicals known to the State of California to cause cancer and birth defects and other reproductive harm.

EXAMPLES INCLUDE:

- > Engine and generator exhaust
- > Engine and generator fuel, and other liquids such as coolants and oil, especially used motor oil.
- > Cooking Fuels
- > Cleaners, paints, and substances used for vessel repair.

> Waste materials that result from wear of vessel components

RECRMETICS

> Lead from battery terminals and from other sources such as ballast or fishing sinkers

TO AVOID HARM:

- > Keep away from engine, generator, and cooking fuel exhaust fumes
- > Wash areas thoroughly with soap and water after handling the substances above

California Health & Safety Codes §§ 25249.5 - 13

BOATING LAWS & REGULATIONS

Boat Registration

Federal and state; laws require that every boat equipped with propulsion machinery of any type must be registered in the main state of usage. Registration numbers and validation stickers must be displayed on the boat according to regulations. The registration certificate must be carried on board when the boat is in use.

Trailer Registration

As well as the boat you are also required in most states to register the boat trailer. For further information contact your local department of motor vehicles (DMV).

Discharge of Oil

The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters of the United States or the waters of the contiguous zone if such discharge causes a film or sheen upon or a discoloration of the surface of the water or causes a sludge or emulsion beneath the surface of the water. Violators are subject to a penalty of \$5,000.

Disposal of Plastics & Other Garbage

Plastic refuse dumped in the water can kill fish and marine wildlife and can foul vessel propellers and cooling water intakes. Other forms of waterborne garbage can litter our beaches and make people sick. U.S Coast Guard regulations completely prohibit the dumping of plastic refuse or other garbage mixed with plastic into the water anywhere, and restricts the dumping of other forms of garbage within specified distances from shore.

THE DISCHARGE OF PLASTIC OR GARBAGE MIXED WITH PLASTICS ITO ANY WATERS IS PROHIBITED.

MARINE POLLUTION (MARPOL) REGULATIONS

LAKES, RIVERS, BAYS, SOUNDS AND 3 MILES FROM SHORE



NOT LEGAL Plastic and any garbage other than Graywater or Dishwater

LEGAL

Graywater (drainage from shower, laundry, bath and wash basin drains), Dishwater (liquid drainage from manual or automatic washing of cooking utensils)

3 TO 12 MILES FROM SHORE



LEGAL Graywater, Dishwater, if ground to pieces smaller than 1 sq. inch: Food Waste, Paper, Rags, Glass, Crockery,

NOT LEGAL
Plastic and if 1
square inch or
larger: Food
Waste, Paper, Rags, Glass, Crockery,
Metal, Dunnage (lining & packing
materials that float)



12 TO 25 MILES FROM SHORE



NOT LEGAL Plastic and Dunnage (lining & packing materials that float

LEGAL

Graywater, Dishwater, Food Waste, Paper, Rags, Glass, Crockery, Metal

OUTSIDE 25 MILES FROM SHORE



LEGAL

Graywater, Dishwater, Food Waste, Crockery, Metal, Dunnage (lining & packing materials that float)

THE DISCHARGE OF ALL GARBAGE IS PROHIB-ITED IN THE NAVIGABLE WATERS OF THE UNITED STATES AND IN ALL OTHER WATERS. WITHIN THREE NAUTICAL MILES OF THE NEAREST LAND.

THE DISCHARGE OF DUNNAGE, LINNING, AND PACKING MATERIALS THAT FLOW IS PROHIB-ITED WITHIN NAUTICAL MILES FROM THE NEAREST LAND.

OTHER UNGROUND GARBAGE MAY BE DIS-CHARGED BEYOND NAUTICAL MILES FROM THE NEAREST LAND.

OTHER GARBAGE GROUND TO LESS THAN ONE INCH MAY BE DISCHARGED BEYOND THREE NAUTICLA MILES OF THE NEAREST LAND.

A PERSON WHO VIOLATES THE ABOVE REQUIREMENTS IS LIABLE FOR A CIVIL PENALTY OF UP TO \$25,000. A FINE OF UP TO \$50,000. AND IMPRISONMENT FOR UP TO FIVE (5) YEARS FOR EACH VIOLATION. REGIONAL STATE AND LOCAL RESTRICTIONS ON GARBAGE DISCHARGES ALSO MAY APPLY.

The U.S Coast Guard has issued these regulations to implement International Convention for the Prevention of Pollution from Ships, 1973, commonly known as Annex V of the MARPOL (Marine Pollution) Treaty 73/78. They apply to all U.S vessels wherever they operate (except waters under the exclusive jurisdiction of a State) and foreign vessels operating in U.S waters out to and including the Exclusive Economic Zone (200 miles).

PNOTICE

It is illegal to discharge waste from your marine sanitary device into the water in most areas. It is your responsibility to be aware of and adhere to all local laws concerning waste discharge. Consult with the coast guard, local marina, or your Corsair dealer for additional information.

Drugs and Alcohol

In the best interest of safety, you SHOULD refrain from the use of Drugs and/or Alcohol while operating your boat. Operation of motorized vessels while under the influence is a Federal offense carrying a significant The use of Drugs and /or Alcohol will decrease reaction time, impede judgment, impair vision, and your ability to safely operate a boat.

Age Restrictions

No person under 16 years of age may operate a motorboat of more than 15hp, except for a sailboat that does not exceed 30 feet in length or a dinghy used directly between a moored boat and the shore, or between two moored boats. The law allows persons 12-15 years of age to operate motorboats of more that 15hp or sailboats over 30 feet if supervised on board by a person at least 18 years of age. A violation of these provisions is an infraction.

Speed

Speed is limited by law for certain conditions and areas. The maximum speed for motorboats within 100 feet of a bather (but not a water skier) and within 200 feet of a bathing beach, swimming float, diving platform or life line, passenger landing being used, or landing where boats are tied up is 5mph. A safe speed should be maintained at all times so that: 1. action can be taken to avoid collision, and 2. the boat can stop within a distance appropriate to the prevailing circumstances and conditions.

REQUIRED SAFETY EQUIPMENT

PNOTICE

As the owner of the boat, you are responsible for supplying all required safety equipment. Check state and local regulations and call the U.S Coast Guard Boating Safety Hotline at 1(800) 368-5647 for information about required safety equipment. You should also consider supplying additional equipment recommended for your safety and that of your passengers. Make yourself aware of its availability and its use. Some states and local agencies require equipment that is not required by the U.S Coast Guard. Your local agency or dealer can provide specific information regarding these non-standard requirements.

Personal Flotation Devices (PFDs)

United State Coast Guard (USCG) approved wearable personal flotation devices of type I,II,III or IV must be on board your boat. The PFDs must be a suitable size for each person aboard and shall be in serviceable condition and readily accessible.

PDF TYPE I, WEARABLE

This PDF has the greatest requires buoyancy. Its design allows for turning most unconscious person in the water from face down position to a vertical or slightly backward position. Type I is most effective for all waters, especially offshore when rescue may be delayed.

PDF TYPE II, WEARABLE

Type II turns it's wearer the same as Type I, but the turning action is not as pronounced as Type I. The Type II will not turn as many persons under same conditions as a Type I.

PDF Type III, WEARABLE

Type III allows the wearers to place themselves in a vertical or slightly backward position. Type III has the same buoyancy as a Type II PFD. It has little or no turning ability.

PFD TYPE IV, THROWABLE

(REQUIRED IN ADDITION TO THE ABOVE MENTIONED PFDs) The PFD Type IV can be thrown to a person in the water, grasped and held by the user until rescued. The design does not allow for it to be worn. The most common Type IV PDFs are a buoy. The throw able Type IV PFD shall be immediately available for use and in serviceable condition.

Fire Extinguishers

All class 1 (16 to 26 feet) powerboats are required to carry one [1] B-I type hand portable fire extinguisher.

All hand portable fire extinguishers should be mounted in readily accessible location, and away from the engine compartment. All persons aboard should know the location and proper operation of the fire extinguisher(s).

If your fire extinguisher has a charge indicator gauge, or hot weather may have an effect on the gauge reading. Consult the instruction manual supplied with the fire extinguisher to determine the accuracy of the gauge.

Visual Distress Signal Devices

Visual Distress Signal Devices are required and may be of the pyrotechnic or non-pyrotechnic type. The regulation requires all recreational boats when used on coastal waters, which includes the Great Lakes, territorial seas and those waters directly connected to the Great Lakes and the territorial seas, up to a point where the waters are less than two miles wide, and the boats owned in the United States when operating on the high seas, to be equipped with visual distress signal devices.

Pyrotechnic and non-pyrotechnic equipment must be U.S coast Guard approved, in serviceable condition and stowed in a readily accessible location. Equipment providing a date for serviceable life must be within the specified useage as labeled.

Pyrotechnic Equipment

Pyrotechnic U.S Coats Guard approved visual distress signals and associated equipment include:

- > Red flares, hand held or aerial
- > Orange smoke, hand held or floating
- > Launchers for aerial red meteors or parachute flares

Non-Pyrotechnic Equipment

- > Orange distress flag
- > Electric distress light

No single signaling device is flawless under all purposes. Consideration should be given to possessing various stowage of the equipment is very IMPORTANT if young children are frequently aboard.

Sound Signaling Device

All class 1 (16 to 26 feet) powerboats are required to cry a hand, mouth or power operated horn or whistle. It must produce a blast of two-second duration and

audible at a distance of at least one-half [1/2] mile.

Navigation Lights

Boats operating between sunset and sunrise are required to display appropriate navigation lights.

Additional Recomended Equipment

The following list (not an exhaustive list) indicates some additional recommended equipment, which should be considered for safety enjoyable boating.

TOOLS

- > Spark plug wrench
- > Screw-drivers
- > Pliers
- > Adjustable-wrench
- > Hammer
- > Jack-knife
- > Electrician's tape
- > Lubricating oil

SPARE PARTS

- > Extra bulbs
- > Extra fuses
- > Shear pin (if used)
- > Spare propeller
- > Extra prop nut & water
- > Spark plugs
- > Spare wire

BASIC GEAR

- > Anchor and line
- > Tow-line
- > Mooring lines
- > Dock fenders
- > First aid kit
- > Foul weather gear
- > Flashlight
- > Oar or paddle
- > Compass
- > Distress signals
- > Boat hook
- > Charts or navigation maps
- > VHF radio
- > Searchlight
- > Ring buoy
- > Signal mirror
- > Sunburn lotion
- > Binoculars

RULES OF THE ROAD

Your boat is subject to U.S Coast Guard-enforcement marine traffic laws known as "Rules of the Road." There are two sets of rules-the United States Inland Navigational Rules and the International Rules. The United States Inland Rules are applicable to all vessels inside the demarcation lines separating inland and international waters. The "Rules of the Road" can be obtained from your local U.S Coast Guard unit or the United States Coast Guard Headquarters (13000 E. Street NW, Washington, D.C. 20226) in the publication titled, "Navigational Rules, International-Inland."

"Aids to Navigation" (U.S. Coast Guard pamphlet #123) explains the significance of various lights and buoys. This and other pamphlets, including the "Boating Safety Training Manual," and "Federal Requirements for Recreational Boats" are also available from the U.S. Coast Guard Headquarters.

Because of proposed alternations in buoys and markers, contact the U.S Coast Guard to stay informed of impending changes. If you have a ship-to-shore radio, telephone on board, heed storm warnings and answer any distress calls.

The spoken word "MAYDAY" is the international signal of distress. "MAYDAY" should NEVER be used unless there is present danger, and emergency, and you are in need of immediate assistance.

General Rules of Seamanship

- 1. Cross-waves at right angles.
- 2. When caught in heavy water or squalls, head your boat either directly into the waves or at a slight angle. Reduce your speed, but maintain enough power to maneuver your boat safely.
- 3. Keep your speed under control. Respect the rights of boats engaged in fishing, swimming, water skiing, or diving. Give them a "wide berth."
- 4. When meeting a boat head-on, keep to the right whenever possible.
- 5. When two boats cross, the boat to the right or starboard has the right of way.
- 6. When overtaking or passing, the boat being passed has the right of way.

Carbon Monoxide and Boating

Carbon Monoxide (CO) is a colorless, odorless gas by product of the burning of carbon based fuels like gasoline. In high concentrations, CO can be fatal within minutes. The effects of CO in lower concentrations are cumulative and can be just as lethal over long periods of time. Symptoms of carbon monoxide poisoning include: Itchy and watering eyes, flushed appearance, throbbing temples, inability to think coherently, ring-

continued on page ##

When bitaning the ACM train New Jersey thru Texas, temp A. 70 scools on. A Indicates a change a change massache ICM from serimand use CAUTION. REMEMBER, RED RIGHT RETURNING Ra 📑 TO PORT Davisi repardets of the coor aid that they 3466 Diable Avenue Hayward, CA 94545, U.S.A. WATERWAY STARBOARD, **BUDY NOTES** SUMMERSON Quick Reference Navigation Rules DAME HATBOR POASTAL MATERIAN **●** E AS SEEN ENTERING FROM SEAWARD AS SEEN ENTERING FROM SEAWARD UNITED STATES AIDS TO NAVIGATION GONDURRER BUOYAGE AS IT APPEARS ON CHART BUOYAGE AS IT APPEARS IN PLACE A NEW O WESTERN RIVERS weaderous a Measure out of the Measure of the Common of t CROSSING DAYMARKS on south in paint when channel costs that and have either gift 2) LICHTS & DAYSEACONS Isodeg severines and agre flashing a on art, group halling 30 A PERIODE SIGNALS TWO: MISSIN, MUST ACKNOWLEDGE IN SOME WAY. RADIO: VMF Ch. 13 (158.85 MHz) CONDITIONS PROCES OF SPECIAL CONDITIONS CHICK LOCAL NOTICES & REG ARCE SCAFOR readound with chances to 0.0 S) DAM POOLS & UNSTABLE WATERS for instruction are boat nation, and death 1) BLOYS are not nathered or fellend BRIDGE SIGNALS VESSEL TOPEN" VESSEL-TOPEN 100 BRIDGE 'OK" SOUND VISUAL ISOLATED DANGER STARBOARD DIVERS AMERICAN TO THE PROPERTY OF TH STATE RIDGE. ON VESSET. BUOYAGE - SYMBOLS - LIGHTS U.S. MODIFIED IALA "B" BUOYAGE MD-CHANNELS OR FARWAYS SAFE WATER AS SEEN ENTERING FROM SEAWARD MAY BE CETTERED ON TO POSET PREFERRED CHANNEL MFORMATION / REGULATORY MARKS NO NUMBERS - WA St. S. Manager 9. In SPECIAL MARKS COD NUMBERS PORT SIDE ON ROBERTH NO. NAME AND POST OF PERSONS IN 11001001 STREET, S SPERIOD OF OR

Quick Reference Navigation Rules

INTERNATIONAL COLREGS AND INLAND RULES OF THE NAUTICAL ROAD

IN RESTRICTED VISIBILITY: FOG - RAIN - SNOW

* IF ALL ELSE FAILS, THE RULES MAY BE BROKEN TO AVOID IMMINENT DANGER * DO NOT FAIL TO COMPLY WITH THE RULES OR PRECAUTIONS GOVERNED BY

GOOD SEAMANSHIP OR SPECIAL CIRCUMSTANCES.

* ALWAYS MAINTAIN A PROPER LOOKOUT BY SIGHT, HEARING AND OTHER

AVAILABLE MEANS.

* STAY WELL CLEAR OF LIGHTS YOU DO NOT UNDERSTAND.

* PROCEED AT A SAFE SPEED AT ALL TIMES.

RISK OF COLLISION EXISTS IF:

- ANOTHER VESSEL'S BEARING DOES NOT CHANGE OR CHANGES VERY LITTLE RELATIVE TO YOU
- AND SPEED CHANGES TO AVOID COLLISION: DON'T CROSS AHEAD
- U ARE MEETING HEAD ON F YOU ARE IN DOUBT BETWEEN: CROSSING AND

DISTRESS SIGNALS

RIGHT OF WAY



STAND ON VESSEL: MAINTAINS COURSE & SPEED

GIVE WAY VESSEL: MUST KEEP WELL CLEAR

SHALL TAKE ACTION TO AVOID COLLISION IF GIVE WAY VESSEL DOES NOT TAKE TIMELY SUFFICIENT, AND APPROPRIATE ACTION VESSEL ABOVE THE LINE IS STAND ON AND ALWAYS HAS THE FIGHT OF WAY, BUT

















1. MEETING HEAD ON: PASS PORT TO PORT

STARBOARD VESSEL

CHOSSING

PORT VESSEL















IF YOU HEAR A FOG SIGNAL AHEAD:



IF YOU TAKE AVOIDING ACTION BASED ON RADAR:
TAKE EARLY POSITIVE ACTION BUT AVOID COURSE CHANGES

1. TO PORT FOR A VESSEL AHEAD, EXCER

30	
OHO MANA	l
26	ı
*	ı
22	ı



■ 4 - 6 seconds

-	ш
30	ACT
TELES. ALARM	ED GE
\leftarrow	N CAME
	1 8

SLOW TO MINI UNTIL YOU'VE

■ IN RESTRICTED VISIBILITY (*FOG SIGNALS*)

IN SIGHT VISUALLY, USE ONLY WHEN IN SIGHT VISUALLY, NOT SOUND SIGNALS SHORT BLAST . . 1 second. PI

same signal if in agreement "Engines in reverse" . . . Engines in reverse" . . my PORT . my STBD .. "I intend to leave you" to INLAND to STBD . to PORT .. (also use when overtaking with a course change) "I am changing course" INTERNATIONAL or MEETING HEAD ON CROSSING

WHEN

and if overtaken must take to your STBD OVERTAKING (only in narrow channels action for safe passage

LEEWARD

UNDER 20 METERS OR FISHING OR SAILING

APPROACH

NAVIGATION

RESTRICTED TO NARROW CHANNELS

OVERTAKEN (from more than 22.5" abalt your beam)

OVERTAKING (includes sail overtaking power)

SAILING: STBD TACK If on same PORT TACK tack, then:

(in all situations

answers If OK, then ov

same signal (or or o

5. PILOT: as above; and may add . . . ■ ● ● every 2 minutes if you a

to your STBD . If OK, overtaken

same as anchored, and add 3 bell strokes

5 second bell every 1 minute
and may add • • • •
Over 100 meters, must add a gong aff

2. POWER: NOT MAKING WAY signal - every 2 minute

3. ANCHORED

POWER: MAKING WAY signal - overy 2 minutes

OBSCURED

CONSTRAINED BY DRAFT (international only) COMMERCIAL FISHING (with gear in the water

RESTRICTED IN MANEUVERABILITY

NOT UNDER COMMAND IN A TRAFFIC PATTERN

CROSSING A TRAFFIC PATTERN

above you on this list (# 7)

POWER DRIVEN

also signal - when

7, TOWED & MANNED - 00 / 2 mins

· RESTRICTED IN MANEUVERABILITY

 FISHING (underway or anchored)
 NOT UNDER COMMAND CONSTRAINED BY DRAFT (in

IF IN DOUBT OR DANGEROB WORE































ing in the ears, tightness across the chest, headaches, drowsiness, nausea, dizziness, fatigue, vomiting, collapse and convulsions. CARBON MONOXIDE POISONING IS OFTENTIMES CONFUSED WITH SEASICKNESS.

Outboard motors exhaust carbon monoxide, do not stand or swim near the motor when the engine is idling.

Outboard powered open boats present a lower risk of exposure to endangerous levels of carbon monoxide from their own motors because natural ventilation dissipates the majority of the engine exhaust. However, engine or generator exhaust form other boats docked or anchored nearby can emit poisonous carbon monoxide gas and endanger people in the vicinity. Be alert for exhaust from other boats alongside your boat, and monitor people around you for symptoms of carbon monoxide poisoning. If you suspect carbon monoxide poisoning, evacuate the area and move the victim to fresh air. Get medical help immediately.

WEATHER

Storms rarely appear without considerable advance notice. Accurate weather information from meteorological observation and reporting stations is available. Weather bureaus are known to have failures in their predictions or information gathering equipment. There is no substitute for a strong understanding of what action to take when the weather takes a turn for the worst. Many marinas fly weather signals. You should learn to recognize these signals, and monitor your local weather forecasts before leaving port.

Storms

The present and forecasted weather conditions are of primary consideration, but a threat of possible storms should always be a concern. Observance of the following information will help in your safety afloat if storms do occur:

- > Keep a watch on the horizon for approaching storm indicators.
- > Turn radio "ON". Dial in local weather station and monitor for forecast.
- > The best possible situation is to return to a safe port if time allows.
- > Close and secure all portals and hatches. Stow all loose gear below deck and tie-down any gear required to remain on deck.
- > Reduce speed as the seas build. Prompt all persons aboard to put on their PDF (personal flotation devices).

- > Place a sea anchor out over the bow to maintain the boat's bow into the seas. If there is no anchor on board use a canvas bucket or any object that will offer resistance against the flow of the current.
- > Radar reflectors (if installed on your boat) should be 18 inches diagonally and placed 12 feet above waterline.

Fog

Fog is a result of either warm-surface or cold-surface conditions. You can judge the likelihood of fog formation by periodically measuring the air temperature and dew point temperature. If the spread (difference) between these two temperatures is small you likely will incur a fog situation. Remember the following guidelines:

- > As fog sets in take bearings and mark your position on the chart while continuing to log your course and speed.
- > Prompt all persons aboard to put on their PDF (personal flotation devices).
- > If equipped with sounding equipment, you should take soundings and match them with soundings on your charts.
- > Station a person forward on the boat as you lookout.
- > Reduce your speed. From time to time stop engine and listen for the fog signals.
- > Sound the horn or fog bell intermittently to warn other boaters.
- > If there is any doubt in continuing boat movements, anchor. Listen for other fog signals while continuing to sound the foghorn or bell.

BOATING ACCIDENTS

All boating accidents must be reported to the proper authorities in the state, which the accident occurred. If someone dies or disappears as a result of the recreational boating accident, it must be reported immediately, with a formal report being made within 48 hours. If there is damage of more than \$500, or if the boat is completely lost, a formal repot must be made within 10 days.

A "Boating Accident Report" form is located in the back of this manual, and if you need additional information you may obtain it by calling the Boating Safety Hotline, (800) 368-5647.

If a serious collision occurs you should first check the condition of all passengers aboard, then inspect your

continued on page ##

eathe Reference

FOR SAFETY: OBTAIN NOAA FORECAST PRIOR TO DEPARTURE. MONTOR RADIO WEATHER WHILE UNDERWAY.

6 STRONG BREEZE [22-27] 5 FRESH BREEZE [17-21] 8' whitecaps and spray 8-13' solid whitecaps 4 MODERATE BREEZE [11-16] 3 GENTLE BREEZE [7-10] begin whitecapping many whitecaps 1 LIGHT AIR [1-3 knots] ripples, no foam WIND SPEED & SEA STATES

8 GALE [34-40] 18-30' with spindrift off crests 7 NEAR GALE [28-33] 13-16' white foam streaks

9 STRONG GALE [41-47] large rolling waves and fo 35'+ vis reduced by 10 STORM [48-55]

huge waves, solid spray	12 HURRICANE [64+]	46'+ sea white with foan
and foam		/ spray

15 E	
발티	
급위	
N S	
SSY WB	
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Small gla	
工品	
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Apply to Frontal Weather System on side 1.
For northern hemisphere, north of 30° testude.
Land masses may cause regional variations.

 PRESSURE: at sea level in millibars (average = 1013.2 mb = 29.92" WIND: true direction (sector) from which wind is blowing

FS / RS = falling (rising) slowly = under 3 mb / 3 hours FM / RM = falling (rising) moderately = 3-6 mb / 3 hours FR / RR = falling (rising) rapidly = over 6 mb / 3 hours SDY = steady, little or no change (950 mb = very deep low, 1035 mb = very strong high) Calibrate your barometer at nearest NOAA station PRESSURE CHANGE: use 3 hour trend of barometer

FORECAST CHANGE

increasing wind / rain 12-18 hrs inc wind / rain 12 hours or less rain in 24 hours rain in 12 - 24 hours, high wind STORMY WEATHER Œ E E.E. 1019 - 1023 1019 - 1023 SE - E - NE SE-E-NE

summer: It, wind/rain in 1-3 days continuing for 1 - 3 days winter: rain / wind in 24 hrs Œ FM - FR EN EN FS 1019 or higher 1016 or lower 뿐

nimer: rain/wind in 12 - 24 hrs ner: rain, snow/wind in 12 hrs servere storm in few hours clear in 24 hours Ė 1009 or lower N-E-S

storms, showers high winds up to 24 haurs cold, thunderstorms, show HM - RR 1009 or lower rapid shift to SW - NW

FAIR WEATHER

little change next 1 - 2 days possible strong N wind off HM - HH SDY 1019 - 1023 ≩ Z

SW

continued fair, possible strong N wind off Ore & Calif in summ CLOUD TYPE & DIRECTION: storms will be worse when high & middle clouds thicken from S-SW-NW sector (clouds may come from different direction than surface wind) SDY or FS 1023 or higher SW - NW

RED SKY IN THE MORNING SAILORS TAKE WARNING RED SKY AT NIGHT SAILORS DELIGHT

FOG minute water droplets suspended near the earth's surface

MARINE (ADVECTION): most persistent, may last several days

colder surface to your location

if wind increases to over 15 knots (fog lifts and forms low stratus clouds) when 4 - 15 knots of wind blows warm moist air over CLEARS:

if wind shifts, bringing colder air

FREQUENCY: (kHz)

FORMAT TIME (FREQUENCY)

13.2) R 2020 (12.73(

N 7800 (2670) F R 0255 (12125) V 7630 (13113.2) V 1754 (2670)

AREA

> B.C., Can. Cattornia

CKN

STATION

NP. SP. NA. SA = North and South Pacific or Atlantic • FORMAT: V = Voice, R = Radiotascimile • TIME: GAT (Greenwich Mean Time) • FREQUENCY: (kH.

HIGH SEAS WEATHER (SSB) morning broadcasts*

AREA: G = Gulf of Mexico, C = Caribbean

NOAA Weather Radio: continuous on Ch. WX 1 - 3

· COASTAL WATERS (VHF)

FRONTAL (PRECIPITATION): extensive, depends on warm front size with warm front weather, nimbostratus clouds and rain
 when wind shifts with warm front passage, ending FORMS: CLEARS:

GROUND (RADIATION); usually in low lying areas, inlets and coves FORMS: • at night, with clear skies, light wind, high humidity; most dense at sunrise

HAZARDOUS WAVE & SURF CONDITIONS CAUTION: if in doubt, stay well offshore until surf drops

when sun 'burns off' fog (usually before noon)

CLEARS:



V 1800 (17356.9) R 1440 M (6852

Worldwide Marine Weather Broadcasts* Innting Office, Washington, D.C.

R 0135 M, W, F (8080)

NA,SA,G,C

Virginia

NAM

WLO

WOO

H 1014 (4271, 10536) V 1640 (2670) H 1800 V 1300 (13131.8)

G, C

NA. SP

Hawaii N.S., Can. Mass.

NPM

waves may not break at high tide but may at low tide abbing tide creates steeper waves over shallow bars waves bend toward shore around point of land and are larger at headlands, smaller in bays and coves

and bar safety reports on VHF Ch. 16

HURRICANE (TROPICAL CYCLONE) very low pressure violent rotary storm with no fronts producing mountainous seas, shrieking winds, torrential rains and chaotic eye surrounded by black wall of Cb clouds

EXTRA TROPICAL STORM | TROPICAL CYCLONI

STORM HURRICANE

SPEED 18-33 KNOTS 34-47 48+

SINGLE SIDE BAND (2.5, 5, 10, 15, 20 mHz)
 WWV Colorado NP, NA, G, C starts 8 min past hour
 WWWH wave INP, SP starts 15 & 48 min past hour
 WWH USCG - Ch. 16, switch to 22 (also on 2670 kHz)

(for local schedule, call US Coast Guard office)

Maneuvering to AVOID a HURRICANE* (Set course early to avoid) 1. listen to NOAA RADIO STORM WARNINGS.

advisory: 36 hours or more • watch: 24 - 36 hours
 warning: imminent danger in less than 24 hours
 determine: LOCATION OF STORM CENTER

 convergence of cirrus clouds - direction of black 'eye wall' clouds
 3. determine: YOUR POSITION RELATIVE TO STORM, and use Buys Ballot Law (see side 1) * direction of long swell

STORM'S DIRECTION OF MOVEMENT (TRACK) If wind increases from steady direction and pressure drops

bring wind on starboard quarter (160° relative to boat's heading you are IN FRONT OF STORM TRACK [A]: make way to navigable semicircle

If wind decreases from steady direction and pressure rises you are BEHIND STORM TRACK IB

avoid center, storm track erratic use NOAA prediction If wind 'veers' clockwise

bring wind on starboard bow (45° relative) make as much way as possible; if you must heave to: put head to wind you are in DANGEROUS (right) SEMICIRCLE [C]:

If wind 'backs' counterclockwise

bring wind on starboard quarter (135° relative), hold course you are in NAVIGABLE (left) SEMICIRCLE [D]: If you must heave to: put stern to wind

STORM DANGEROUS Tape record broadcasts, plot information on chart MAVIGABLE Mavigable semicircle is hazardous - avold

are opposite in southern hemisp "NOTE: Wind directions and mar

3465 Diablo Avenue Hayward, CA 94545, U.S.A.

Corsair Foiler 2200 Owner's Manual

-Ti 1 90 10 TO 10 1 -4

DIRECTION MIND PRESSURE BAROMETRIC CLOUDS USING

AID MACCEC

AIR	MASS	wind	visibility	clouds	precip.
COLD	unstable	gusty	pood	cumulus	showers
WARM	stable	steady	poor	stratus	steady

Formed in six main 'source' regions:

1. arctic 2. continental polar 3. maritime polar
4. continental tropical 5. maritime tropical 6. equatorial

FRONT cold air pushes under warm

COLD

moves fast: 20 - 35 + knots + lies NE to SW

moves E - SE following warm front

weather deteriorates rapidly

FRONTAL WEATHER SYSTEM (see sidebar)

HIGHS AND LOWS

 cold & warm AIR MASSES meet at a low pressure trough
 counterclockwise (no. hemisphere) circulation begins pressure drops • a 'wave' forms • a low center develops fronts form and move counterclockwise around LOW

SYSTEM moves E - NE (occassionally SE - E or N)
 warm front leading, cold front following
 wind blows 15° toward low across ISOBARS (lines of = pressure)
 the closer together the isobars, the stronger the wind
 the closer to LOW you are = higher winds & worse weather

HIGH (H) = clockwise with no fronts
 LOW (L) = counterclockwise with fronts
 to LOCATE HIGH or LOW in the open sea use:

1. stand with your back to the wind
2. turn 15° to your right
3. LOW is on your left, HIGH on your right



FRONTS

0

BUYS BALLOT

warm air slides over cold air 15 knots · lies NW to SE moves slowly, 10-15 knots WARM FRONT

occurs on east side of LOW

weather deteriorates gradually

Forecast: WARM FRONT PASSAGE in 24-48 hours approaching clouds seen 1000+ miles ahead in a warm front with stable air masses:

FORMATION

COLD

WEATHER

SYSTEM

FRONTAL

OCCLUDED

 altostratus As, nimbostratus Ns with rain 2. in a warm front with unstable air masses:

cirrus Ci clouds thicken to cirrostratus Cs, then

, ijw

DMM FAIR

wind steady from SW
 altocumulus Ac clouds on W or NW horizon
 barometer falls, clouds lower and thicken
 cumulonimbus Cb form with increased rain and wind
 SOUALLS: precede front by 5-6 hours (100+ miles)

 approaching clouds seen 50 - 150 miles ahead Forecast: COLD FRONT PASSAGE in 12 hours HIGH

 cirrus CI turns to cirrocumulus Cc then altocumulus Ac. then cumulonimbus Cb with thunderstorms and squalls

/WARM

LOW PRESSURE FRONTAL WAVE

rain is sporadic with downpours to light showers

3. barometer falls

HOH

COOL

ISOBAH -

SECTOR

0700

 thunder follows lightning by 5 seconds per mile cold blast of wind several miles ahead of squall

to estimate distance of an approaching squall;

· intense black clouds, violent gusty winds

OVERHEAD VIEW

· wind veers from SE or S to SW

4. front passes gradually, less intense than cold front

drizzle and fog may persist if air mass is stable

 rain and thick clouds diminish
 temperature rises barometer rises, steadies, falls as cold front nears STATIONARY FRONT slow moving, normally extends in E-W direction with persistent poor weather on north side

FHONTS MOVE

WARM & COLD FRONTS FORM

OCCLUDED FRONT formed when cold front overtakes warm front + poor weather coming



rapid clearing but cumulus Cu clouds may persist

barometer rises + temperature drops

strong winds gusty from W - NW

gusty wind + rapid veering from SW to W - NW barometer at its lowest - rain or snow squalls

6. front passes; weather sequence

rare on SW coast

LOW = 6,500' or less

MID = 23,000' - 6,500'

HIGH = 45,000' - 16,500'

ppt = precipitation likely
 N, S, E, W, etc. = direction surface wind is from
 Hight of cloud base above ground: HIGH = 45,0

WIND, FORECAST

PHOTOS BY HENRY GENTHI





IRROSTRATUS Cs gauzy sheets, halos around the sun and moon steady NE E to S = ppt 15-25 hours

IRRUS Ci mare's tails, thin wisps, steady NE E to S = ppt in 20-30 hours W NW to N = fair weather

STRATUS St low, gray, foglike, not a good indicator of future weather



IMBOSTRATUS Ns dark gray towers, rain streaks, wind, NE to S = ppt





CUMULUS Cu cauliflower puffs, if no vertical development – fair, can change to cumulonimbus





COLD OVERTAKES WARM, BECOMES OCCLUDED

UNULCONIMBUS Cb stormy, thunderheads with anvil tops, windy, SW W to N = ppt and wind soon

rolls, in frontal weather may turn to Nimbostratus

boat to determine the extent of damage.

- 1.If your boat has a ship-to-shore radio, contact (VHF Channel 16) the U.S. Coast Guard or other rescue authorities immediately.
- 2. Prepare to assist the other craft unless your passengers and/or boat are in danger.
- 3. If the bow of the other boat penetrated your boat's hull, prepare to block the opening once the boats are separated.
- 4. Shore up the hole with a spare PDF or bunk cushion from your boat.
- 5. While blocking the hole, trim weight of the boat (where hole exist) so that it is out of the water during repairs.
- 6. If the extent of damage places your boat in a possible sinking condition have all persons aboard put on their PDF (personal flotation devices).

Fire

A fire on board your boat is a serious emergency; you must work quickly to implement safety procedures. If a fire occurs, immediately stop the engine.

- 1. Prompt all persons aboard to put on their PDF (personal floatation devices).
- 2. If the fire is small, attempt to put it out with your fire extinguisher, if fire is in the engine compartment, turn off the engine. Do not open the engine compartment. This feeds oxygen to the fire and flashback could occur.
- 3. If the fire gets out of control, execute a distress signal, and call for help if equipped with a shipto-shore radio.
- 4. All persons aboard should jump overboard and swim a safe distance away from the flames.

NOTICE

All persons aboard should know the location and proper operation of the fire extinguishers.

EPIRB or VHF Marine Radio Licensing Information

For information on getting a license for a VHF marine radio or Emergency Position Indicating Radio Beacon (EPIRB), contact the U.S Federal Communications Commission (FCC) at (800) 418-3676 for forms, or (888) CALL-FCC for assistance.

A. Radio Procedures—Marine & Emergency Distress

SPEAK SLOWLY AND CLEARLY-CALL ON CHANEL 16:

IF YOU ARE IN DISTRESS (i.e., when threatened by

grave and imminent danger) or are observing another vessel in distress, transmit the International Distress Call on Channel 16 "MAYDAY,MAYDAY,MAYDAY THIS IS (state vessel's name and assigned call letters, repeat 3 times)".

IF ABOARD A VESSEL IN TROUBLE—-STATE:

- 1. Who you are (your vessel's call letter and name).
- 2. Where you are (your vessel's position in latitude/longitude or true bearing and distance in nautical miles from a widely known Geographical point: local names known only in the immediate vicinity are confusing).
- 3. What is wrong.
- 4. Kind of assistance desired.
- 5. Number of persons aboard and the condition of any injured.
- 6. Present seaworthiness of your vessel.
- 7. Description of your vessel-length, type, cabin, mast, power, color of hull, superstructure, and trim.
- 8. Your listening frequency and schedule.

IF OBSERVING ANOYTHER VESSEL IN DISTRESS—GIVE:

- 1. Your position and, if possible, the bearing and distance of the vessel in difficulty.
- 2. Nature of distress.
- 3. Description of the vessel in distress (see item 7 above).
- 4. Your intentions, course, and speed, etc.
- 5. Your radio call sign, name of your vessel, listening frequency, and schedule.

NOTE: The International sign for an aircraft that wants to direct a surface craft to a vessel in distress is: Circling the surface craft, opening and closing the throttle or changing propeller pitch (noticeable by change in sound) while crossing ahead of the surface craft, and proceeding in the direction of the vessel in distress. If you receive such a signal, you should follow the aircraft. If you cannot do so, try to inform the aircraft by any available means. If your assistance is no longer needed, the aircraft will cross your wake, opening and closing the throttle or changing the propeller pitch. If you are radio equipped, you should attempt to communicate with the aircraft on Channel 16 when the aircraft makes the above signals or makes any obvious attempt to attract your attention. In the event you cannot communicate by radio, be alert for a message block dropped from the aircraft.

B. If you need Information or assistance from the Coast Guard (other than in a distress) call COAST

GUARD on Channel 16 (The Distress and Calling Frequency). In this situation you will normally be shifted to a common working frequency (21, 22, or 23) allowing the DISTRESS frequency to remain open.

NOTIFY THE COAST GUARD PROMPTLY AS

SOON AS THE EMERGENCY TERMINATES

Radio Checks

Do not use Channel 16 to call the Coast Guard merely for a radio check. Such use is prohibited by the Federal Communications Commission.

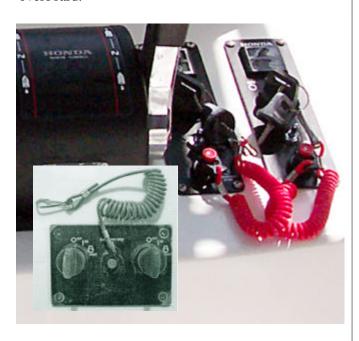
SYSTEMS RND COMPONENTS

HELM

The helm station is the control center for the boat. The main control system is the engine throttle and shift controls and the steering system. These provide the operator the ability to control speed, direction, boat trim, and attitude. Each manufacturer provides manuals on the operation and use of their systems.

Lanyard Stop Switch

The purpose of this safety device is to stop the engine when the operator leaves the control station accidentally by falling into the boat or by falling or being ejected overboard.



The lock plate on the end of the lanyard must be attached to the engine stop switch for the engine to run. Securely attach the lanyard to the operator's clothing, arm or leg. Be careful not to attach the lanyard to clothing that could easily tear loose or to place it where it can become entangled. Either situation defeats the lanyard's purpose.



The lanyard stop switch should not be used as the normal engine shut off.

Engine Throttle and Shift Controls

Refer to the engine manual supplied with your engine for specific information on your controls.

There are three major components of the engine throt-

tle and shift controls: handles, throttle cable, and shift cables. Throttle and shift cables are push-pull and are connected to the fuel system (carburetor or fuel injection) and the other to the shift rod linkage. By moving the handles forward and back, the operator engages the cables thus controlling the amount of fuel being used and the gear selector for forward, neutral and reverse. Careful use of the controls provides smooth, responsive and safe operation.

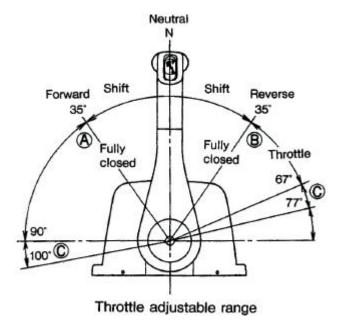
CRUTION

Do not bring the throttle back abruptly to stop the boat unless it is an emergency. Allow time for the engine rpm to come down to idle before shifting to reverse or sever gearbox damage could occur.

PNOTICE

Each manufacturer's engine controls contain a neutral safety switch to prevent accidental starting with gear engaged. The adjustment of this device should be done only by a certified technician. If the engine will not start in neutral, a slight movement of the control may be necessary to locate the actual "neutral" position of the neutral safety switch.

The control is generally in neutral when the lever is 90° to the control box. Moving the lever 25° forward will engage forward gear. Moving the lever 25° aft from the center will engage reverse gear. There is usually a slight detent at the point where a gear is engaged.



When shifting from neutral to forward or reverse, the operator should always perform a brief pause to allow time for the gearbox to engage in the proper gear at a minimum rpm. This pause will reduce gear clash and provide for longer gear life.

Free Accelerator

Set the control lever to neutral (N) and while pushing the free accelerator button, rotate the control lever. The throttle can be opened without shifting into any gear. This free accelerator is used when starting or warming up the engine.

NOTICE

- > The free accelerator button cannot be operated unless the control lever is in neutral.
- > After operating the free accelerator button, set the control lever to neutral (N), and the free accelerator button will move automatically to its set position so that it can be freely turned to forward and reverse.

Each manufacturer's engine controls contain a neutral safety switch to prevent accidental starting with gear engaged. The adjustment of this device should be done only by a certified technician. If the engine will not start in neutral, a slight movement of the control may be necessary to locate the actual "neutral" position of the neutral safety switch.

Steering System

The manual, which comes with your steering system, will provide specific information on your steering system.

direction.

If your corsair Foiler 2200 has twin engines, then a mechanical link bar system will connect the 2 motors to operate in unison.

It is important that you get the "feel" of your boat's steering system. Steering does vary from boat to boat depending on hull shape, engine type and horsepower, water and wind condition, and load.

Turn wheel from full left to full right and make certain the engine or drive unit is turning correctly. The system should run freely and smoothly.

PROPULSION

Your new Corsair Foiler 2200 is designed to be powered by outboard motors.

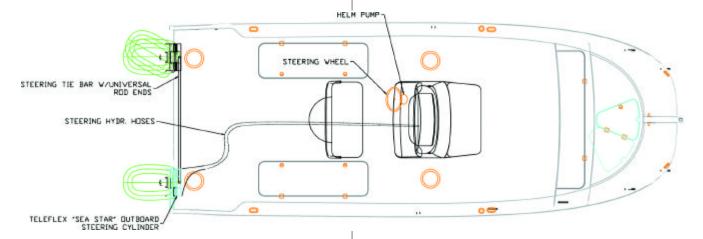


Do not overpower your boat. Never install an outboard motor with horsepower exceeding the manufacturer's recommended maximum (listed on the boat "Certification Plate"). Excessive horsepower will have an adverse effect on hull safety and may cause operating and handling difficulties.

Engine Oil

The choice of engine oil is a major factor affecting engine performance and life.

Using premium quality four stroke motor oil will increase the service life of your motor. Use only oils



The steering system for your Corsair Foiler 2200 (shown above) is a state of the art "no-feedback" hydraulic steering system. Turning the helm unit controls the movement of a hydraulic cylinder which moves the engine left or right contrilling the boat's

which are rated SE, SF, SG, SH, or SJ under the API classification system. The viscosity rating should be SAE 10W-40. If an SAE 10W-40 motor oil is not available, select an alternative according to the chart on page ##.

(Insert chart picture)

This image was not provided!



Always follow the manufacturer's recommendations and use only the recommended oil types.

NOTICE

In very cold weather (below 5°C (-15°F), use SAE 5W-30 for good starting and smooth operation.

Gear Oil

Use high quality SAE 90 hypoid gear oil.

Gasoline



- > If leaded gasoline is used, engine damage may result. Use only unleaded gasoline.
- > Do not use fuel of a lower than recommended octane or fuel that may be stale or contaminated by dirt/water etc. Such poor quality fuel will affect performance and may damage your engine and fuel system.

Break-in Information for your Outboard Motor

The first 10 hours are the most important in the life of your engine. Proper operation during this break-in period is essential to help ensure maximum life and performance. Refer to the BREAK-IN section



Don't attempt to service your outboard or any of its components unless you are thoroughly familiar with its operation and dangers. Many of the moving part components are exposed and can pose an extreme danger to anyone unfamiliar with their operation. Always leave the servicing to a qualified technician.

Each manufacturer provides manuals designed to assist you in the proper operation and maintenance of your new engine. Follow their guidance and schedules for proper operation of your new engine. With a modern outboard there is little to do as proper maintenance is performed, in accordance with the manufacture's recommendation. If the boat is to be kept in saltwater for an extended period, electrolysis and marine growth can become a problem. When leaving your boat in salt water overnight or for an extended period, tilt the engine as high out of the water as possible. This will decrease the possibility of marine growth on the outside of the engine, as well as reduce the potential of marine growth compromising the cooling water inlets in the lower unit, which can cause overheating.



Do not paint your outboard's lower unit with paints designed for boat hulls. Some can cause severe damage

to your engine. Check with your engine manufacturer to get their recommendation.



Do not attempt to control adjustments unless you are very familiar with their function, operation and adjustment. Failure to properly adjust the system components can adversely affect your boat's performance and safety. Misadjustment can also cause severe control, engine or lower unit damage.

PNOTICE

Please return all warranty cards for boat, engine and other related items. This will assist you in the event you have a warranty problem.

Engine Cooling System

Most outboard engines are cooled by water taken in through ports in the lower part of the drive section. Make sure these ports are free of debris or other items that might cause the flow to be restricted. Maintain a routine vigilance to see that the visual inspection streams have a steady flow of water. If they do not, shut down the engine to see if they are clogged or if there is a more serious problem. Be especially watchful if you have gone through an area of vegetation or shallow water as the intake ports can become clogged with weeds, dirt, or other debris.



Do not run your outboard without water coming into the lower unit. The water pump impeller can be damaged in only seconds of this type of operation.

Propellers

A turning propeller moves the boat through the water, forward or backward. They should have always been clean and free from nicks or dings, which can adversely affect performance. Your dealer can assist you in the proper selection of a propeller for your boat. This selection is based on the horsepower of the engine and its relationship to the size and weight of the boat.

Propeller sizes are determined by two numbers, which appear on different propellers at various locations. They are listed in sequence, for example 13x17. The first number is the diameter of the propeller and the second is the pitch. Pitch is the theoretical distance the propeller moves through the water with each complete revolution. The larger the number, the greater the theoretical movement. It also follows that the larger the

number the greater horsepower is required to turn it. With a load that is "normal" or usual for your boating activities, the engine should be able to reach its maximum operating RPM range at wide open throttle (WOT). With a light load on smooth water, the engine should reach it's manufacturer's rated maximum operating RPM at wide open throttle (WOT) and maximum trim. If it doesn't, you may have a propeller, which has too much pitch. If it goes beyond the maximum recommended RPM range, you may have too little pitch. Neither condition is good for the engine. You will get shorter engine life and poorer performance than your boat and motor were designed to provide.



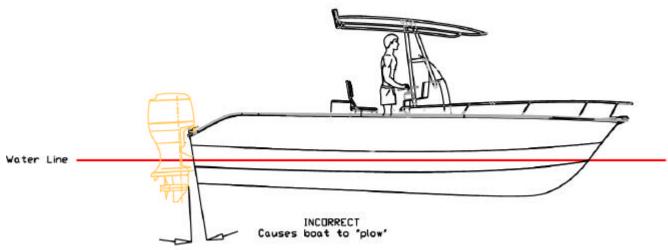
FNOTICE

If your boat came from the factory with a propeller selected by Corsair, it should already be optimized for the performance of your boat. Before changing the pitch or diameter of your propeller, always check with your dealer to determine how the changes will affect your boat and engine performance.

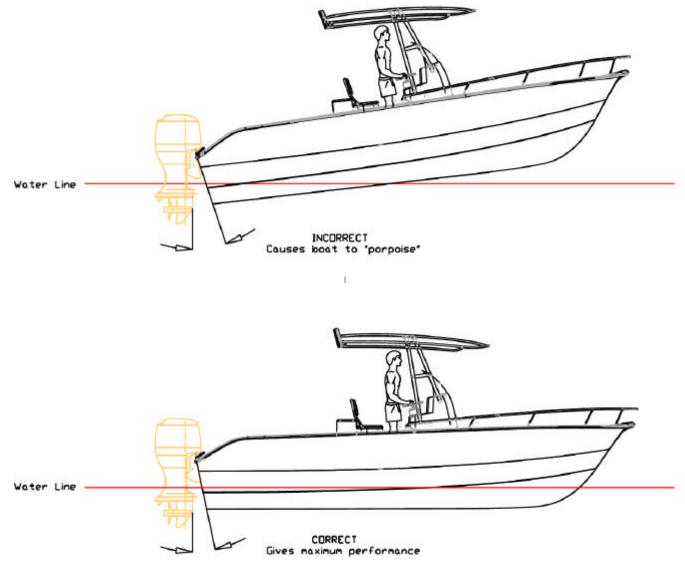
Trimming

Tilt/Trim Control Switches

- 1. The standard trim control switch is located on the control lever handle.
- 2. The switch controls the "trim" of your boat under various conditions, loads, and uses. Proper trim is very important in boating. Trim refers to the angle of the lower unit in relation to the bottom of the boat.
- 3.In the case of low or heavy bow attitude, the lower unit is normally trimmed too far under or forward. Trim the unit out or up to correct this situation.



- 4.If the bow is too high or steering is difficult, your lower unit could be trimmed up to far. Trim IN to correct.
- 5.A good practice is to get underway with the unit trimmed all the way under or IN. After the boat is on plane, adjust the trim out slightly to obtain the proper bow attitude and engine RPM.
- 6.Trim also affects propeller selection and fuel efficiency. All models should be propelled" to be in the upper half of the maximum RPM range with the boat lightly loaded and the lower unit trimmed up to maximum. This configuration will allow the engine to operate within the recommended RPM range with a heavy load.



The lower unit should never be trimmed up to a point where the propeller cavitates (or slips). A rapid increase in engine RPMs is evidence of cavitations. If this occurs accidentally while running at full throttle, immediately lower the lower unit trim and reduce the throttle unit until the slipping stops. Have your dealer reset the trim limit switch to avoid over trimming in the future.

If the prop slips at lower planning speeds, the lower unit may be trimmed too high. Immediately lower the lower unit until the prop "grabs" again to restores efficiency.

On performance boats, trimming out, in addition to raising the bow, also lifts the boat higher, gaining speed because of less hull in the water.



Excessive trim will decrease maneuverability; change steering characteristics, and may cause "proposing" (bow oscillates up and down) or "chine walking" (rocking from side to side). USE POWERTRIM WITH CARE.

ENGINE INSTRUMENTATION

The following section is presented to familiarize you with the instruments, which may be on your boat. Every boat is not equipped with full instrumentation.

All factory installed Yamaha engines include Yamaha's digital multifunction tachometer and speedometer. Refer to your engine operator's manual for use details.



Tachometer

The tachometer displays the number of revolutions per minute (RPM) the engine is turning. There is a designed operation RPM range for the engine. Become familiar with the operating range of your engine and its operating characteristics. The tachometer can be used to better understand the performance of your engine and your Corsair Foiler 2200. By monitoring your tachometer as you operate your Corsair, you will find RPM ranges that work better in certain sea and load conditions. Be alert the tachometer operation may provide an early indication of difficulty, before it becomes irreversible.

Engine Alarms

Most utboards are equipped with several audible engine alarms. Your engine owner's manual will familiarize you with these and their sometimes-distinctive sounds.



If an engine alarm sounds, shut down the engines until the source of the problem is determined.



Speedometer

The speedometer indicates the boat speed in miles per hour. Their accuracy can vary from the actual over the bottom speed, due to many factors. Boat speedometers calculate the speed by amount of pressure the moving water forces into a "pitot" tube. These gauges should only be used as indicators of approximate speed and not used as absolute speed indicators.

Temperature Guages

This is designed to monitor the operating temperature of your engine's cooling system. A sudden rise from the normal should be investigated to determine if there is an obstruction in the cooling system.

Water Pressure Guage

This gauge measures pressure in the engine cooling system. If the pressure changes from the norm it could

indicate a complete or partial blockage in the system or a water pump problem. If this does not return to normal, your dealer should check it to make sure the cooling system is operating properly.

Fuel Guage

This gauge indicates the amount of fuel in the tank. It is always prudent to follow the "rule of thirds", one-third of the tank to get the destination, one-third to return, and one-third in reverse. The most accurate reading of the fuel gauge is at idle speed when your boat maintains an approximately level point.

This gauge is a measure of relative fuel supply and is not a calibrated instrument!

Oil Pressure

The oil pressure gauge will reflect most, if not all, serious problems that may occur within your engine. A pre-set valve in the oil pump controls the maximum oil pressure. If a complete loss of oil pressure occurs, stop the engine immediately. Serious damage to the engine can result after loss of oil pressure if the engine continues to run. Check the engine oil level and fill if low. If oil level is full and gauge reading is low, contact your Corsair Dealer or a qualified mechanic to rectify the problem. Do not restart the engine until correcting the problem. See engine manufacturer's specifications for correct pressure ranges.

Voltmeter

This meter displays the voltage for the battery and charging system. It can tell you if your alternating is working or whether your inability to start is really due to a dead battery. It also helps monitor the battery while on the water, if you are using a lot of power due to bait tanks etc.



Hour Meter

The hour meter keeps a record of operating time and is very useful for scheduling maintenance, like oil changes, tune-ups, and valve adjustments.



Power Trim Guage

Indicates the relative position of the drive unit. This should be read carefully as it does not show position of the drive unit in degrees. Proper trim should be indicated by bow attitude and engine RPM.



Compass

The compass assists in determining your location by indicting your position relative to magnetic north. For accuracy, your compass may need to be adjusted to take into account specifics of your boat and geographic location. Please refer to the material provided with your compass for "compensation"



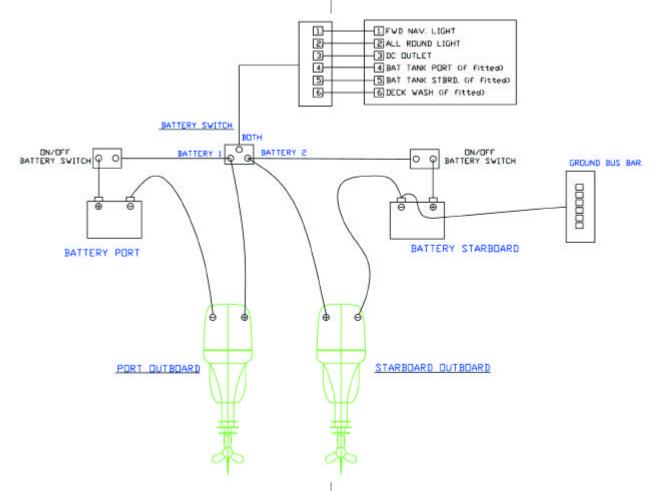
ELECTRICAL SYSTEM

The corsair Foiler 2200 operates on a 12 volt DC system similar to your automobile. The system consists of a breaker panel, batteries, and battery switches.

The drawing below gives an overview of how the system works.

Navigation Lights

Although activities are limited at night, night cruising



Battery Switches

A separate battery switch isolates each battery. Unless these are "on", you cannot start your outboards. Also there is a battery selector switch. It has 4 position; one, two, both and off. You will need to select either one or two in order to operate your other electrical devices. The "both" position should only be used if one of the batteries is flat. By switching to both you can start your outboard from the opposite battery.

Batteries

The batteries supplied area AGM type (Absorbent Glass Mat). These require no maintenance, do not spill or leak, are shock and vibration resistant with minimal gas release.

Switch Panel

The switch panel has 6 water resistant rocker style fused switches. When the red light is illuminated it indicates the power is "On".

can be pleasurable. Be especially careful of shallow waters and be on the watch for submerged debris, rocks, and other obstacles in the water. Navigation lights are intended for collision avoidance only and are not intended to improve the operator's night vision.

If your boat has factory installed navigational lights, the stern light is white, and there is a red and green lights for the port and starboard side respectively. The stern light is a removable pole light. To use the light, line up the two-prong plug in the pole with the receptacle in the base. Plug the light in, and lock into place with lever/slide lock. During the day, stow the light inside your boat to keep it out of the way. Navigational lights are permanently installed on the deck.

Check lights for proper operation before heading out. You should also learn to identify the running light combinations for other vessels. We recommend your participation in a boating safety course to further learn about navigation lights and safe boating practices.

FUEL SYSTEMS

Your Corsair Foiler 2200 is equipped with internal fuel tank system, consisting of port, starboard fuel fillers, fuel vents, sender units and the tanks themselves.

Fuel Fill Plate

The filler plates are located on each side of the boat, on top of the coaming and are labeled "Gas". Be sure to utilize the proper grade of fuel as specified in your engines owner's manual.

Fuel Filter

The fuel filter is installed near the engine. The filter should be replaced frequently to maintain an adequate supply of clean, uncontaminated fuel to the engine.



Fuel Vent

The internal fuel tank is vented overboard. While the tank is being filled, the air is expelled by the fuel and escapes through the fuel vent.

Sending Unit

This sends a signal to the fuel gauges on the console to give an indication of how much fuel is stored in each tank.

Fuel Tank

The internal fuel tank is accessible through a removable hatch cover and is equipped with a fuel vent line, fuel fill line, sending unit, and engine fuel pickup as shown in Figure 2.1. Each tank holds 44 US Gallons.

Fueling

Before fueling, you should follow these procedures.

- > Make sure the boat is securely moored.
- > Make sure all switches are off and all cigarettes are extinguished.
- > Know the location of the fire extinguisher in case of an emergency.
- > Remove the fuel fill cap.
- > Place the nozzle firm against the side of the opening.
- > Begin fueling
- > When the tank is full, stop fueling.
- > Remove the fuel nozzle.
- > Install the fuel cap.
- > Check the area for fuel odors.



If fuel odors are detected, do not start the engine! Check to make certain there are no leaks or system problems before starting the engine. Do not fill the fuel tank while engine is running; fuel is very flamable.

DRAINAGE

All water drains from your Corsair Foiler 2200 by gravity. Your boat is self-bailing at rest. It is important to check drains frequently to make sure they are clear and free flowing. Review the schematic in the appendix and become familiar with the location of each thrubull drain.

Drain System Maintenance

Essential tasks must be done periodically to maintain your boat's ability to drain in adverse conditions.

- > Clean cockpit drains to remove debris and foreign objects, which could prevent boat from draining properly.
- > Check bilge area for debris and foreign material, which can cause automatic switches to malfunction.
- > Flush drains to keep free flowing and clean.

Cockpit Drains

Your Corsair Foiler 2200, drains aft thru two cockpit drains located in the aft corners of the cockpit. These exit the boat through the side. These should be checked periodically to make sure they are clear running and free from debris. When washing the boat down, after use, use a hose nozzle with a high-pressure stream to make sure they are free running.

The outboard well also has two drains located in the aft corner. These exit the boat through the transom. These should be checked periodically to make sure they are clear running and free from debris.

Bilge

When the boat is out of water it may be drained by a thru hull drain located at the bottom of the transom. This drain has a plug that may be removed. This plug should be periodically checked for tightness.

Automatic bilge pumps have been installed in aft, bilge area. These should be checked for correct operation before heading off. You should also check that they are clear of debris. A separate switch panel is mounted on the console to operate these. When in the automatic position, the pumps well turn on when the water level in the bilge rises enough to raise the float switch and in turn connect power to run the motors. When in the manual position, this will over ride the float switch and the pump will run continuously while the switch is held.



Water in the bilge can pass freely between all bulkheads fore and aft. A tube is installed under the fuel tank to allow water to pass freely fore and aft.

Anchor Locker

This locker is designed to drain directly overboard the drain should be checked periodically to make sure it is free from debris.

MISCELLANEOUS SYSTEMS

Live Bait Well (optional)

The primary function of the live wells is to provide the means for keeping your bait alive until your day of fishing ends. Figure 2.3 shows a typical live well system.

The live well system has a pump that draws water in through a hull fitting and pumps the water into the live wells.

Water above the level of an overflow on the side of the live well, flows through a hose and out a fitting on the side of the boat.



To Fill the Live Well

Turn lever on valve to position marked "tank". Check to make sure the hull valve is turned open; turn on pump at switch panel. The pump will fill with water and then flow back out the overflow. By running the pump continuously, this will keep fresh oxygenated water in the tank to keep your bait live. To ensure that your live well remains clean and the water in it remains fresh, empty the live well after you have finished using it. To drain the live well turn valve to "sea" and the water level should start to drop.



If water in the live well system freezes, hoses can break as the frozen water expands. Be sure to empty the live well completely during freezing weather.

Do not operate the live well pump if it is not pumping water. Operating the pump dry can overheat its watercooled motor and damage the unit. If water does not come out of the aerator nozzle:

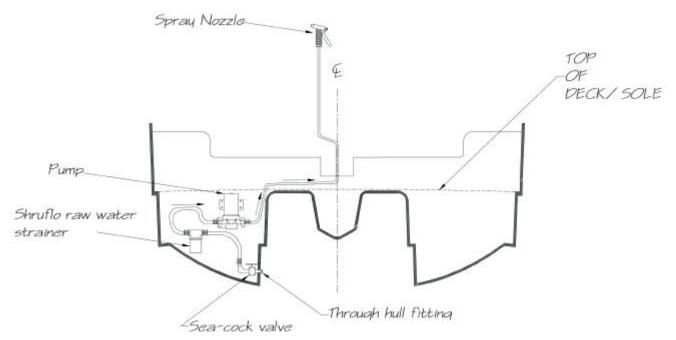
- 1. Check the live well fuse on the bow panel. Replace the fuse if necessary.
- 2. Make sure the pump is not clogged. If the pump or thru-hull lifting is clogged, you may be able to clear the obstruction by forcing water back through the pump. Using a garden hose, direct water flow into the pump outlet until water flows freely from the thru-hull inlet.
- 3. Make sure current is reaching the pump. Check and tightened connections. Make sure wires are not broken.

Fish Boxes

These are used to store your catch of the day. Each box has a drain over board, which can be plugged with bungs supplied. This allows you to keep ice in your box to keep your fish fresh. At the end of the day, you simply remove the bungs and wash the box clean. Each box is insulated with rubber seals lids to help make the ice last as long as possible.

Deck Wash

The deck wash pump delivers water on demand. With the spray nozzle off (output side closed) the pump will turn off. As the nozzle is opened, the pressure within the hose (output sides) drops. Once the pressure drops below a predetermined point, the pumps pressure switch closes and the pump operates. With the nozzle set at a fine mist the pump will cycle, as it is able to pressurize the hose faster than water being released. If the spray nozzle is held wide open, the pump will operate continually. The pump may momentarily operate



even after the nozzle is closed, as it pressurizes the hose. Once the pressure setting is reached, the switch opens and the pump stops.

Duty Cycle

Wash-down pumps are rated for intermittent duty (only), as they operate at higher than average pressures. Operating a pump continuously for more than twenty (20) minutes, within an hour period, is not recommended. Actual duty cycle is determined by amp draw, temperature, and rate of cycling.

PNOTICE

Rapid cycling should be minimized to ensure long life. Rapid cycling is defined as On/Off within two seconds.

Strainer/Filtration

A wash-down system is only as dependable as the water available to pump. A strainer with adequate capacity to trap debris must be part of the system. The interval for cleaning will be determined by the amount of debris encountered. Check the strainer regularly.

PNOTICE

Your deck wash thru-hull is fitted with valve. Make sure valve is open before turning on the pump. If you run the pump dry, you will damage the pump and void your warranty.

Swim Platform

If your Corsair Foiler 2200 is equipped with the optional swim platform, there are several important things to remember for safe use and operation of this option.

- > Always shut down the engine if persons will be using the platform. Do not just settle for the engine being in neutral.
- > Make sure the folding ladder portion has been properly stowed before getting underway.

Protection Against Electrolysis

It is the boat owner's responsibility to periodically inspect and replace the sacrificial zinc anodes on the outboard motor. Damage resulting from electrolytic corrosion is not covered by Warranty.

Sacrificial zinc anodes, installed by the dealer or the engine manufacturer, protect the hardware that is exposed to the water. Electrolysis attacks the softest or least "noble" metals first. Because zinc is a less "noble" metal, it will decompose before the more "noble" metals. Check these zinc anodes periodically and have them replaced as required.

Bottom Paint

If you have bottom paint applied to your boat, choose carefully. Make sure it is not copper based type paint. Because the foil and outboard legs are manufactured from alloys, the copper and alloy in seawater will cause accelerated rate of corrosion and void your warranty.

PRE-LAUNCH And Underway

TRAILER

Trailer Nuts & Bolts

Even though we do all we can do to ensure that all nuts and bolts are tight when your trailer leaves the factory, it is the owner's responsibility to make sure all of the fasteners are tight before using the trailer on a regular basis.

Load Carrying Capacity

Make sure the total weight of your trailer, boat, engine and gear does not exceed the trailer's Gross Vehicle Weight Rating (GVWR). If you don't know the weight of your boat when it is fully loaded (gas, gear, motor, etc.) and mounted on the trailer, have it weighted. The total weight should not exceed the GVWR, which appears on the serial tag located on the left front side of your trailer.



Trailer Weight Distribution

Proper load distribution on your trailer is also very important. Poor weight distribution can cause "fishtailing" and put excessive strain on your trailer and towing equipment. The trailer-coupling ball, with the tongue parallel to a level surface should support Five (5) to ten (10) percent of your trailer's Goss Vehicle Weight.

For example if the GVW of the boat, gear and trailer is 1,500lbs. The weight on the coupler should not exceed 150lbs. Or are less than 75lbs. For lighter boats, a small scale (like a bathroom scale) can be used to check the weight distribution limit, try moving gear inside your boat first.

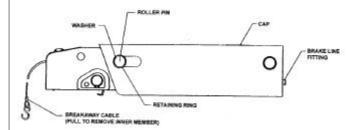
Trailer Lightning Information

Your trailer is equipped with a submersible lighting system. However there are some things that you can do to prolong the life of your trailer lights. Always unplug your trailer lights from the tow vehicle prior to launching and retrieving. Waterproof grease, petroleum jelly, or WD-40 should be put on plug contacts and bulb bases to prevent rust and corrosion. Once or twice a year trace the wiring system from the tow vehicle to the taillights. Inspect the harness for bare spots, cracked insulation, pinched wires, or corroded terminals. If you spot any of these problems, repair them immediately. Be certain that the white ground wire is securely fastened to the trailer. Before each trip, check your system for burned out, broken bulbs, and cracked or broken lenses. If your trailer is equipped with Disc Brakes, you will have a 5th wire (blue), which locks out the trailer disc brakes when you back up.

How Surge Breaks work and Tips for Towing Trailers Equipped with Surge Brakes

If your trailer is equipped with hydraulic surge brakes, the brakes will energize automatically when the tow vehicle's brakes are applied. These are known as "surge brakes". When the vehicle slows down or stops, the forward momentum (surge) of the trailer against the hitch ball develops hydraulic pressure in a master cylinder inside the trailer brake actuator. Hydraulic lines are used to transfer pressure to the brakes and engage them.

While on the road, obey speed limits and do not follow other vehicles too closely. When towing a trailer, even with brakes, you will need extra distance to stop, and should allow for it.

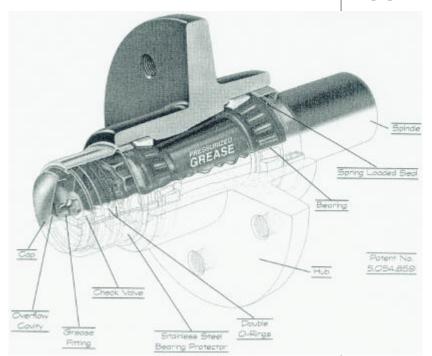


Disc Brakes

Your trailer maybe equipped with optional Disc Brakes. No adjustment is necessary. Unlike drum brakes, which may be overpowered in reverse, disc brakes require a solenoid valve to stop the flow of fluid to the brakes. We are using two types of solenoid valves either Normally Open or Normally Closed. Certain applications require the use of a Normally Open solenoid valve. The normally open solenoid valve is installed "in line" near the master cylinder. With the normally open solenoid valve, if the trailer is stopped in a downhill attitude, some positive pressure will remain in the brake line. When the back-up light is energized, the solenoid valve merely traps the pressurized brake fluid, which may or may prohibit backing up the trailer. With the Normally Closed solenoid, the problem of trapping fluid is eliminated because the trapped fluid is returned to the master cylinder. This is a high-pressure brake system. Be sure to bleed brake system thoroughly. The disc brake manufacturer recommends bleeding the system again after the first 100 miles of towing.

Used & Service Tips for Bearing Buddy

Bearing Buddy prevents wheel-bearing failure because it keeps water and other contaminants out of wheel hubs. The spring-loaded piston in the Bearing Buddy, pushing against the grease inside the hub holds a slight (3psi), constant pressure inside the hub. Because there is always more pressure inside the hub then outside (even when the trailer is submerged) water cannot enter. For Bearing Buddy to function properly, hubs must be completely filled with grease. Your hubs have been filled at the factory, however it is always a good idea to check the Hubs.



Hitch

Always check your tow vehicle's hitch, ball, and the trailer coupler for signs of wear or damage. Replace any parts that are worn or damaged before towing. Know your trailer weight plus the added weight of the boat, motor, fuel, and gear. Do not exceed the lesser of

coupler, vehicle, ball, or trailer weight ratings. Use only the ball diameter indicated on your coupler. Use of any other ball diameter will create an extremely dangerous condition, which can result in separation of the coupler and ball or ball failure. Be sure that the coupler is secured to the hitch ball and the lever lock is down tight and locked. Be sure that the ball clamp is properly nested under the ball and not sitting on the top of the ball.

DRIVING TIPS

On long, gentle downhill grades try to avoid downshifting. Running in a low gear (which uses the engine as a brake) can actuate the trailer's surge brakes continuously for the duration of the grade, causing them to overheat. Better procedures is slow down before the start of the downgrade run and maintain a controlled downhill speed with repeated application and release of tow vehicle (and thus trailer) brakes. This technique permits the brake to cool down between applications. This will help ensure reserve-braking capacity in an emergency.

On moderate and steep sections of road, downshifting into lower gears may be necessary and desirable to help speed control. Again, slow down before the grade

and keep vehicle speed under control. Do not stay on the brakes continuously because they can overheat. Don't hesitate to pull over when possible during or after severe braking situations to let everything cool down.

Running a stretch of highway where you don't brake is the quickest way to cool down the brake system because a high volume of air flows over the brakes to cool them.

Before launching, if the brakes are hot, it is a good idea to let them cool down. The sudden change in temperature caused by submerging hot brakes in cool water stresses the parts and may cause damage.

If you are new to trailering your boat, it is best to practice before actually getting in a situation where you are not sure of your ability. IF possible use a trailer without a boat to practice with as you can see the trailer's movement without the boat. Also, your vision will not be impaired by the boat's presence.

When going forward, remember that your trailer turns inside the tow vehicle, therefore the tow vehicle must start the turn slightly later than without the trailer. This allows the trailer to turn inside the tow vehicle radius without the trailer in the roadway..

When backing, remember, the bottom of the steering wheel will move in the direction the trailer will ultimately go. Backing consists of two parts, breaking the trailer by turning the vehicle's backward motion in the opposite direction from the ultimate trailer direction, then following the trailer toward the correct direction with the tow vehicle. It is prudent to go to a large paved area with little traffic to practice these maneuvers before attempting them on the ramp.

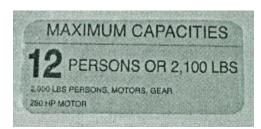
After immersing your trailer brakes in saltwater, it is important to flush them with the brake flushing system, if your trailer is so equipped. This will help to minimize corrosion and extend the life of your brakes. Simply hook a garden hose to the flush kit hose bib and turn on the water. Allow the water to run vigorously for five to ten minutes to thoroughly flush the brakes.

NOTICE

Before backing in water, disconnect any tie-downs from the boat trailer.

PRE-LAUNCHING

All boats under 26-feet in length, are required to have a capacity rating plate showing the recommended persons capacity as well as the actual weight capacity of the boat including persons, engine and gear. Also, on outboard models, the plate will show the maximum horsepower, which can be safely installed.





Do not exceed these capacity ratings. An overpowered boat can become unstable, sometimes resulting in loss of control or capsizing. An overloaded boat can become sluggish and hard to handle. Overloading or overpowering can also reduce freeboard and increase the danger of swamping, particularly in rough water. In addition, overloading or overpowering is illegal

under most state laws and the warranty is void if the owner exceeds the recommended capacity ratings.

Inspection Checklist

Before beginning your boating excursion, get a current weather report. If the weather will not be favorable, post-pone your trip.

- 1. Inspect the hull and propeller for damage, excessive dirt or marine growth, which will affect your boat's performance and fuel efficiency.
- 2. Check the electrical system and navigation lights.
- 3. If your boat has been in the water, operate the bilge pump until the flow of water stops.
- 4. Check that all required safety equipment is on board and in good working condition. Examples include personal flotation devices (PFDs), horn, fire extinguisher, visual distress signals, etc. Take along a gallon of water.
- 5. Check that all other required equipment is on board. Examples include mooring lines, anchor lines, tool kit, etc.
- 6. Visually inspect engine for oil, fuel, or water leaks; cracked hoses; defective belts; or other signs of engine problems. Check engine oil and battery water levels.
- 7. Check fuel level.



Fuel leaking from any part of the fuel system can lead to fire and explosion that can cause seriously bodily injury or death. Inspect systems before starting the engines. Do not smoke and keep open flames away when checking fuel systems.

- 8. If launching from a trailer, remove the support bracket (if used), and tilt the stern drive up to the high tilt position to avoid damage during the launch.
- 9. Check provisions, make sure you have plenty of water in the event or you have a problem and are delayed.
- 10.Before backing your boat down the launch ramp:
 - > Remove all stern tie-downs.
 - > Properly secure all loose gear
 - > Inventory, your safety equipment
 - > Load all personal gear
 - > Lock winch and trailer unit
 - > Disconnect trailer wiring from towing vehicle, to prevent short circuits caused by submersion.
 - > Make sure the hull plug is in place.

- > Place a line on the bow and stern cleats to be at the dock ready.
- > Have fenders out and on the proper side.

Launching Guidelines

Here are some tips to remember when putting your boat in the water.

- 1. Have an individual at the launch ramp give you directions. Back slowly down the ramp. Always remember to launch your boat at a right angle to the shoreline.
- 2. When the boat's transom is in several inches of water:
 - > STOP the towing vehicle
 - > Leave manual transmission in gear or place automatic transmission in park.
 - > Turn off the engine
 - > Set the hand brake

PNOTICE

If you have a bunk trailer, the boat's transom must be deeper than several inches in the water before launching.

- 3. Do not unclasp the winch cable from the bow eye until a mooring line has been secured to the boat. Attach one line to
 - the bow and one line to the stern to help control the boat.
- 4. Lower the drive unit into the water. Start engines, put engines in reverse and pull back sufficiently enough to to launch boat from trailer.
- 5. Pull your towing vehicle away from the launch ramp.
- 6. Park only in designated areas. When parking, be sure your towing vehicle and trailer do not block other boaters from approaching the launch ramp or hinder their ability to maneuver a boat and trailer when launching.

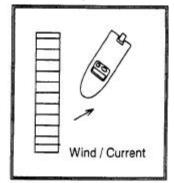
Docking

Safe docking keeps your boat from being damaged and is an indicator of a capable and knowledgeable captain. There are many docking maneuvers, which will be done while boating; only the basics will be discussed here.

Several constants to always use as guide while docking:

1. Perform docking at idle or no wake speeds. Always try to come into wind or current, whichever is stronger. This allows you to use

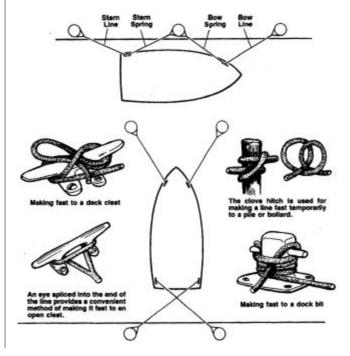
- the natural forces, which affect on your boat to act as a natural brake. The skipper is free to use the boat's power to control speed and direction.
- 2. The approach to the dock should be at roughly a 45° angle, when possible. This approach angle allows the captain to bring the bow close to the dock, and then to use reverse, while turning the wheel toward the dock, to bring the boat to a safe, controlled stop.
- 3. Never approach a dock on plane. Even after reducing engine speed, the wake will push the boat uncontrollably into the dock.



Mooring Lines

The mooring lines you will use most often are the bowline, the stern line and spring lines. Each line has a specific purpose. The bowline and the stern line secure your boat's bow and stern. The two spring lines keep your boat from moving forward or backward when you are moored alongside a dock.

Mooring lines must be long enough to secure your boat in any docking situation. For example, the length of the lines for a 16-foot runabout should be at least 15-



feet. An eye splice at the end of each line should be large enough to fit comfortably over bow or stern cleats.

PNOTICE

If you are mooring your boat in an area where tides are a consideration, be sure to leave slack in the lines to make up for the rise and fall of the water.

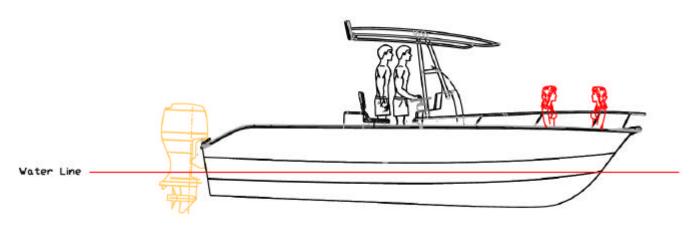
If you are mooring your boat for a short time, bow and stern lines may be the only lines you will need. If you are mooring your boat for a longer time or if the currents are swift, you should use spring lines. The stern spring line leads from the boat's stern cleat forward to the piling or cleat on the dock. The bow spring line leads from the bow cleat aft to the dock. If you are mooring your boat in a slip, bow and spring lines, port and starboard, will keep your boat in position.

Loading

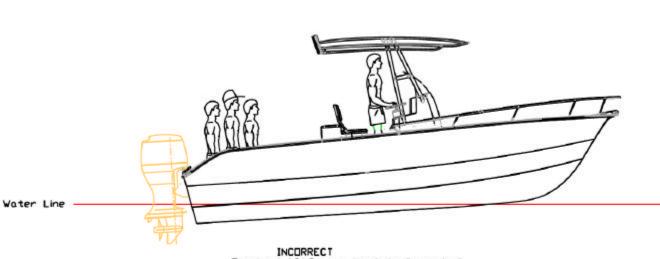
When loading your boat, remember to distribute the load evenly. Keep the load low and do not overload. The capacity plate affixed to your boat states the maximum load capacity. The plate shows persons and gear in pounds that the boat will safely handle under normal conditions. The U.S Coast Guards establishes these load capacity ratings.

When loading always step onto the boat, never board by jumping. Have someone on the dock pass your gear aboard. Secure all gear firmly so it will not move or interfere with operation of the boat.

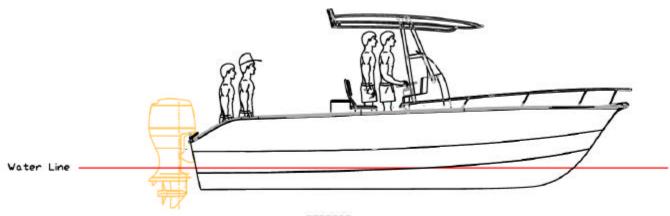
Passengers should aboard the boat one-at-a-time and be seated. Passengers should remain seated during loading of the boat to maintain an even trim. Prohibit passengers from riding on the bow with feet hanging over the side, or riding while sitting on the stern or gunwales.



INCORRECT Overload Forward Causes boat to 'plow'



Overload Aft:Causes boat to 'porpoise'



CORRECT
Balance load: Gives maximum performance

The presence of the capacity plate does not relieve the boat operator from the responsibility of using common sense or sound judgment. Turbulent waters and adverse weather conditions will reduce the maximum load capacity rating of the boat.

After Starting the Engine

- Upon initial start-up, make sure to follow the manufacturer's recommendations for the engine break-in.
- 2. Check to be sure there is a telltale water stream exiting the engine.
- 3. Check the gauges to determine if everything is normal.
- 4. Check to make sure everything is secure and properly stowed away; remember the boat's movement is dynamic and anything loose will become a hazard at the worst possible time.
- 5. Check the emergency stop lanyard to see if it is properly attached, and that the shift lever is in the neutral position.
- 6. Check fuel and oil to make sure you have more than enough for the planned trip.

CRUTION

Remember the rule of thirds: 1/3 out, 1/3 back, and 1/3 reserve.

CRUTION

Remember that the captain is responsible for the safety of the crew and Passengers and for his/her boat's wake damage.



Never operate the boat while under the influence of alcohol.

CRUTION

Make sure someone else on board knows how to operate the boat in the event if you are injured and are unable to operate the boat.

FNOTICE

If you are operating the boat for the first time, make sure you follow the engine manufacturer's break-in Recommendations. This will assure proper break-in and reduce the possibility of engine problems.

AMPRING

Never allow anyone to sit on the gunwale while the boat is moving!

- 7. You are responsible for any damage or injury caused by your boat's wake. Observe no wake speed zone warnings. Operate your boat with regard for the safety of other boats and people in your boating area.
- 8. Keep your engine well turned to decrease exhaust hydrocarbon emissions that pollute the air and water.
- 9. Be a good neighbor. Sounds can carry a long distance over water, especially at night. Loud conversations and music can be disturbing to others as can excessive engine noise. Check with local authorities regarding any noise restrictions.

Getting Underway

After clearing the dock, make sure the power trim (if so equipped) is trimmed down. (This will bring the boat up on plane More quickly and easily). Give the engine sufficient throttle to bring it to plane briskly, then back

down to the cruising speed of your choice, based on the sea conditions and your planned activity.

- 1. After coming on plane, raise the trim to a point where the engine is level with or slightly above the plane of the water. This is usually with the bow at about 3° to 5° above level. This will provide the smoothest, most economical operation.
- 2. Keep a constant vigil for other boats and watercraft and be prepared to give way, or slow down, if necessary. (We suggest you enroll in a boating safety course offered by the U.S. Power Squadron or the Coast Guard Auxiliary.)
- 3. When coming off plane, allow the engine to come back to an idle speed until the boat slows down.
- 4. Shift to the neutral position.

While underway keep a constant vigil for the other craft that may be approaching, the gauges on your boat, location of passengers and the general sound and feel of your craft. Often, a change in the way the engine sounds or the boat feels will presage a problem. Your early attention may prevent a more serious problem.

CAUTION

If you should strike an underwater object, bring the throttle to neutral and stop the engine. Inspect the lower unit for damage. If none is apparent, proceed as before but heighten your. Awareness of the engine and its operation to make sure a problem has not gone undetected.

Stopping — You do Not Have Brakes on a Boat

Practice stopping maneuvers and learn early how your boat reacts. From forward motion, pull back the throttle towards NEUTRAL. Depending on your speed, the distance the boat travels until it comes to a complete stop will vary. The ability to measure this distance will only be acquired through experience.

To aid in a quicker stop, the throttle/shift can be moved to the reverse position once it has been returned to NEUTRAL.

NOTICE

Be certain that all persons who have operated the boat are acquainted with all facets of boat handling.

Anchoring

1. The weight of the anchor and diameter of anchor line should be governed by the size and

- weight of your boat. Obtain advice from your dealer before purchasing an anchor.
- 2. Keep anchor secure while underway to prevent damage or injury due to sudden shifting in the boat's attitude.
- 3. Make sure the anchor line is secured to the bow eye or bow cleat. Never tie toe rail, rail fitting, or other hardware

Which is not meant to support this stress. Never tie anchor to the stern unless you also are using a bow anchor. Anchoring by the stern only could cause wind driven waves to enter your boat.

- 4. Use two or more anchors if anchoring overnight or for extended periods. If not using two anchors, make certain there is sufficient clearance for your boat to swing in a full circle to prevent damage in case of shifting winds.
- 5. Make certain you have enough anchor line (or scope) for the depth of water. Your anchor line should be 6-7 times the depth of water anchored in. For example, you are in 20 feet of water, so use 120-140 feet of anchor line.

Dropping Anchor

- 1. Have a crewmember carefully lower the anchor. Keep slight tension on the anchor while lowering and maintain your tension after anchor reaches bottom.
- 2. Maneuver the boat backwards slowly until the proper length of anchor line is handed out.
- Fasten the anchor line around the bow eye or deck cleat. Anchor flukes should dig in and catch.



Watch for anchor drag by checking shoreline landmarks at the time the anchor is dropped and one-half hour later. If the boat has drifted away from these reference marks, the anchor is dragging and must be reset.

Weighing (pulling in) Anchor

- 1. It is recommended to have the engine running when you pull in anchor.
- 2. Slowly maneuver the boat forward to reduce tension on the line and make retrieval of the anchor line easier.
- 3. Pull in the length of anchor's shank and free the flukes from the bottom.

If the anchor becomes stuck, attach the vertical line to the mooring cleat. Wave action on the bow may lift flukes from the bottom and free the anchor. If the anchor is still stuck, feed out a few feet of line and attach it to the bow cleat. Maneuver the boat around the anchor, keeping the line firm. Locate an angle that will pull the anchor free.

Foil Characteristics

The corsair Foiler 2200 has an alloy foil mounted between the two hulls. This gives extra lift to the boat. In doing so, the boat can travel faster, further, smoother and more efficient.

To get the most use from the foil, you need to be traveling at a minimum of 25 mph. This is approximately the speed that the foil begins to lift the boat. This figure will vary depending on whether the boat is lightly or heavily loaded.

Unlike V shaped hull boats, Catamarans usually lean outwards when turning the boat at speed; however, the Corsair Foiler 2200 is different. When turning at speed, the Corsair Foiler 2200 will lean inwards. This makes the ride more comfortable.

When passing another boat, you need to be aware of your position in relation to the other boats wake. Always cross another boats wake at least 45° or greater. Crossing wake close to parallel can be dangerous and uncomfortable.

Also remember when motoring, that anything you motor over can get caught on the foil, plastic bags, seaweed and this can effect the performance. Please remember to respect all marine life as you could seriously injure or kill. This also includes human life.

Safety is paramount. It is the driver's responsibility to be in complete control of the boat, the safety of the boat, its passengers and to be aware of everything that is in the vicinity of the boat.

Retrieving Your Boat

There are several ways to retrieve your boat. The

method described herein requires two persons.

- > Drop someone off to back the trailer into the water, or do it yourself, If doing it yourself, make sure you make it easy and safe to exit the boat after it is loaded onto the trailer.
- > Back the trailer into the water until the bunks are completely submerged, or until the middle roller is just touching the water. (This depth should provide enough to float the boat short of the winch stand.)
- > Drive the boat onto the middle of the trailer. This is assuming it is a trailer designed for drive on. Speed should not be over one or two knots. Fast enough to maintain steerage but slow enough to be easily controlled.
- > Once the boat has touched the trailer, a little forward throttle should secure the boat on the trailer and allow you to put the engine in neutral and have the winch line attached to the bow eye. The boat should now be easily winched onto the last few feet of the trailer.

PNOTICE

When properly done, this method is easy, safe and will not harm boat ramps by powering away the soil from the base of the ramp.

- > Start engine on towing vehicle and pull trailer out of water to boat securing area.
- > Use tie-downs to secure boat on trailer.
- > Remove the drain plug.
- > Make sure lower unit is secure.
- > Wipe hull down to prevent water spots and keep hull clean.
- > Make sure everything in the boat is secured or tied down. Place anything loose in towing vehicle.
- > Reconnect trailer lights. Check that lights are working.

WINTERIZATION AND STORAGE

This section of your owner's manual will assist you in preparing your boat for prolonged storage. When cold weather has arrived, or a change in your boats usage requires extended storage, we suggest you follow the guidelines contained within this section. Corsair recommends a thorough annual inspection.



Consult your engine manual for specific instructions covering winterization of the engine.

PRIOR TO STORAGE

Hull

- 1. Scrape off any barnacles or crusted marine growth.
- 2. Scrub the hull thoroughly to remove marine growth and scum.
- 3. Inspect the underwater gear and propellers for excessive wear or damage.
- 4. Remove the hull drain plug and store in a safe place.

Deck

- 1. Wash the deck, superstructure and cockpit.
- 2. Clean all deck hardware (i.e. Cleats, rails, instruments, etc.) and apply a coat of metal polish wax.
- 3. Wax the entire boat. The hull will maintain its factory delivered luster much longer if waxed at least once a season. The inside of the boat, which is subject to the sun's direct rays, will also respond well to a good coat of marine wax.

Engine

1. Drain the engine block(s) and manifolds.



In regions where temperatures fall below freezing, no water should remain in the engine before storing your boat for the winter. Failure to do so will seriously damage the engine. Freeze damages is not covered by the Corsair Warranty. Make sure your boat's engine is slightly bowed up during the extended storage period.

Fuel System

Fill the fuel tank completely, or empty completely. Either method will minimize condensation. You may want to add a gasoline stabilizer solution to the fuel, if the tank is to remain full. Follow the product manufacturer's recommended procedure.

Engine Lubrication

- 1. Drain oil when engine is warm. This will ensure complete drainage of oil. If the engine oil contains sludge, use a flushing oil to clean away the residue. Refer to your engine manual.
- 2. Replace the engine oil filter.
- 3. Fill the crankcase(s) with the required quantity of recommended engine oil as specified in your engine manual.
 - > Open all zippers and elevate cover away from the foam padding.
 - > Change the engine lower unit lubricant. This will remove contaminants that may have built up throughout the boating season. This is also a good time to check for lower unit seal problems. If there is a leak, have it repaired by your dealer.
- 4. Clean and lubricate all linkage.
- 5. Spray the entire exterior surface of the engine with a rust and corrosion inhibitor.
- 6. Remove the propeller. Clean and lubricate the prop shaft and check for damage.

Battery

1. Remove battery, and store away from freezing temperatures.

NOTICE

Battery should be stored in a cool dry place.



To prevent personal injury, wear goggles, rubber gloves and a protective apron when working with battery. Battery electrolyte can cause severe eye damage and burns to the skin. In case of spillage, wash area with a solution of baking soda and water.

- Clean outside battery case, terminals, and battery clamps with a solution of baking soda and water. NOTE: Do not allow baking soda/water solution to enter the cells.
- 3. Lightly sand battery post and clamps with fine grit emery cloth.
- 4. Apply a light coat of petroleum jelly to the

- cover end of the battery cables.
- 5. A monthly recharge or continuous trickle charge should be applied to the battery during storage.

Live Tank

It is important to remove the water remaining in the hoses and pumps. Use a compressed air hose in all fittings and drain holes to remove all remaining water.



Failure to remove all water from the live well system in freezing weather could result in component damage and/or leaks. This damage is not covered by the Warranty.

Interior Cleaning

- 1. Be sure to remove everything that can hold moisture and cause mildew. Remove and store OFF the boat, all cushions, towels and clothing.
- 2. If it is necessary to store cushions on board:
 - > Open all zippers and elevate cover away from the foam padding.
 - > Place a small plastic bowl or other round blunt object inside the cushion to allow for adequate air
- 3. Make sure the cabin is well ventilated.
- 4. Personal flotation devices (PFDs) and other safety equipment must be cleaned and dried. If left on board, equipment must be cleaned and dried. If left on board, place them where air can circulate around them.
- 5. Clean and thoroughly dry the bilge area. Remove all rags, sponges, or other cleaning materials from bilge area.
- 6. Allow the interior to completely air out for a couple of days, weather permitting.
- 7. If you store your boat outside, we recommend that you do not store it with the canvas and bow set on. Cover with storage cover, tarp or plastic -especially if you live in an area of heavy snow. Whatever material you use for a cover, be sure the boat is properly ventilated.

FNOTICE

After cleaning, make sure everything is thoroughly dry and air can circulate freely throughout the inside of your boat.

If you Store Your Boat on a Trailer

- 1. Loosen all tie-downs to relieve the stress on the hull.
- 2. Place block under the axles if tires are to come

- in contact with damp ground.
- 3. Repack the trailer wheel bearings.
 - ? Thoroughly wash brakes with clean fresh water.
- 4. Store with the bow up, and remove the drain plug to allow for any excess water to drain.

Recommisioning

1. Inspect the fuel system and all associated equipment for proper connections, corrosion, leaks, or other damage. Always be alert for the odor of fuel vapors.



For detailed information concerning recommissioning of the engine, refer to your engine manual.

- 2. Clean battery terminal posts with a wire brush or steel wool before installing.
- 3. Check the charge on the battery. Recharge or replace if necessary.
- 4. Inspect all battery wiring. Repair or replace if necessary.
- 5. Attach the battery cables and tighten the cable clamps.

NOTICE

Do not apply petroleum jelly or marine grade grease before connecting and tightening clamps.

- 6. Coat the hull drain plug threads with petroleum jelly and reinstall.
- 7. Clean the bilge area.
- 8. Test the navigational lights and all other lighting on board.
- 9. Inspect all wiring for fraying, wear, loose connections, and other damage.
- 10. Inspect all switches, controls, and other related equipment for proper operation.
- 11. Inspect all safety equipment for proper operation and physical condition.

Trailer

- 1. Check the wheel bearings for water. Clean and repack/replace as necessary.
- 2. Check the tires for proper inflation.
- 3. Check actuator and coupler is free and operating correctly
- 4. Check brakes are operating correctly (check your trailer manual for specific instructions on procedures for this).

CARE AND APPEARANCE

This section includes recommendations for cleaning the aluminum, hardware, fabrics, vinyl, and carpeting on your boat. Although household cleaners may be used, they should be used in small quantities. Cleaners containing chlorine, solvents, or petroleum may damage your boat's components and are a pollutant if they get into the water. In addition, cleaners containing phosphates encourage algae blooms. Mixing cleaners can cause harmful chemical reaction. Use citrus-based cleaners or the cleaners recommended. Check with your dealer for additional information.

Properly used and maintained, your boat will give you years of service and enjoyment. By keeping your boat "shipshape", you will be doing more than protecting your investment; you will also ensure good performance and safety on the water.

The first step in ensuring good performance is keeping your boat clean, particularly below the waterline where a build up of scum, algae, or other marine growth can rob you of performance and fuel efficiency.

NOTICE

Before attempting to use a particular cleaning solution or method for cleaning, test the material to be cleaned in a hidden or inconspicuous area for possible adverse reactions.



Wire brushes; scouring pads, or other abrasive type materials/solutions should never be used on the deck or hull of your boat. They create small scratch marks that will collect marine growth and other foreign materials.

EXTERIOR HULL AND DECK

Fiberglass

When you remove the boat from the water, clean it as soon as possible. Dirt, debris and grime will come off easier while it is still wet. Use a brush and biodegradable boat cleanser. Stubborn areas may be cleaned with a non-abrasive cleaner. Harsh abrasives and chemical cleaners are not recommended as they can damage the gel-coat, shorten its life, and make it more susceptible to stains. When used in saltwater, the boat should be washed after each use.

The hull should be waxed periodically, at least once a year, with a high quality wax. This will keep it shiny looking and help prevent chalking and aging. The wax will also make it easier to keep clean by closing the pores that trap the grime.

CRUTION

If the boat is to be kept in freshwater or saltwater for an extended period, a proper barrier coat and bottom paint must be applied.



Do not wax non-skid areas. It could make them slippery and increase the possibility of injury.

Stainless Steel Hardware

The stainless steel hardware of your boat should be cleaned and washed after each boat use, especially in salt or polluted water. While it is "stainless" it is not "stain-proof". If it is not cleaned, it can develop surface rust stains. It can be protected with a high quality automotive or boat wax. It can also be protected with a commercial metal cleaner and a protectant.

Anodized Aluminum

The aluminum can be maintained with a regular washing with soap and water. Otherwise it can develop a surface corrosion, which can penetrate the anodizing and attack the aluminum underneath. If badly scratched, it can be repaired with an aluminum or silver paint.

Chrome Hardware

Use a good metal polish and protect with wax. This should be done every couple of months or as soon as you notice any finish deterioration.

Plexiglass

Do not use products with ammonia on your Plexiglas windscreen. It can mar the surface and reduce its transparency. A moil soap and water or non-ammonia cleaner will work well. In addition to ammonia, cleaners should not be used which contain solvents, acetone, or alcohol.

Upholstery

Your boat's seat and vinyl upholstery should be kept as

clean as the exterior finish to prolong life and beauty.

- 1. Always try to clean up spills quickly to prevent staining.
- 2. Clean dirt and smudges with mild soap and warm water. If necessary, scrub with a soft bristle brush to remove dirt from textured vinyl. Dry with a soft, lint-free cloth or towel.
- 3. Certain household cleaners, powdered abrasives, steel wool and industrial cleaners can cause damage and discoloration and are not recommended. Dry cleaning fluids and lacquer solvents should not be used, as they will remove the printed pattern and gloss. Waxes should be used with caution. Many contain dyes or solvents that can permanently damage the protective coating.
- 4. Periodic applications of a vinyl protection solution will help keep vinyl clean and pliable. Follow instructions provide by vinyl manufacturer. Check cleaning solution labels before using. Do not use 409[®] cleaner or Armor All[®].
- 5. Removable outside seat cushions should be placed inside when not in use.

Canvas

T-tops and bimini-tops are designed and intended to provide coverage of the helm seating areas from the sun. These tops are not a weather cover and will be damaged by accumulation of rainwater. While these tops are intended to provide ample weather protection for the helm, the tops are not completely weather tight like a winter storage cover.

Cleaning

IMPORTANT: Do not use hot water, dry in an automatic dryer, dry clean or steam press canvas.

- 1. Wet down all canvas. Use a soft bristle brush and scrub with a mild detergent and water solution.
- 2. Use a mild solution of ammonia/water and scrub for heavy soil or mildew build-up. Be sure to rinse thoroughly.
- 3. Brush or sweep underside of the top. Spray with Lysol™ or other disinfectant to prevent

mildew.

Care

- 1. Keep the top up in rain or when boat is not in use.
- 2. Air-dry canvas material before storing. Never store canvas while damp or wet, and provide proper ventilation to prevent mildew.
- 3. Avoid mooring under trees.
- 4. When not in use, remove the top and store in the boot on board your boat.

Engine

If you have a new engine with a built-in-flushing device, the engine may be flushed without cranking. IF the engine does not have a built-in flush device one may be purchased to fit.

To flush the engine, after connecting a water hose to the proper connection, turn on the water. Put the engine control in the idle position and crank the engine. Only let it run a few minutes. The gear case is watercooled and is not designed to run out of the water for extended periods.



Do not crank the engine without water running. Water acts as a coolant and also a lubricant for the water pump.



Do not rev the engine when flushing; idle speed is sufficient.

The exterior of the engine will respond well to a good quality wax. This should be reapplied every several months as the marine environment is a very harsh one and the constant sun exposure will deteriorate your motor's finish. Consult the engine manufacturer's owner's manual for specific instructions. In areas where there is a conflict between this manual and the engine manufacturer's manual, the engine owner's manual will take precedence.

DOCUMENTS AND FORMS

NOTES:	TES:
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Will add in all the forms in final draft :-)